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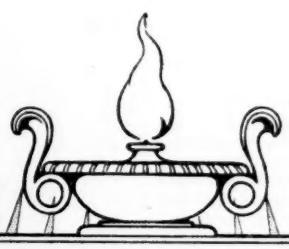

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HOEFFTCKE'S EXTENSION APPLIANCES.

DESCRIPTION OF

HOEFFTCKE'S EXTENSION APPARATUS

as applied in the Ambulatory Treatment of Fracture of the Limbs, Tuberculous and Arthritic Disease of Joints.

By C. A. HOEFFTCKE,
21, Woodstock Street, Oxford Street, London.
By Appointment to several Hospitals and Societies.

THE medical profession is conservative, and need be, as so many different treatments are tried and found wanting. It is therefore satisfactory to me in obtaining success with my treatment for fractures and diseased joints by means of my Extension splint, and to find that after a prolonged trial a number of eminent surgeons continue to employ it in a steadily increasing number of cases. An Extract from THE LANCET (see below) shows that it is possible even in most complicated fractures to enable the patient to walk about with comfort while the bones are uniting, and to obtain, indeed, splendid results, when otherwise union of the bones in a workable position would have been despaired of and the patient crippled for life.

A great many surgeons who were present at the B.M.A. Meeting in London last year can remember a Doctor walking about in my splint. I may say it was one of the best cases for demonstrating the advantages of the use of my splint, as so many surgeons saw it.

The patient was a Doctor from South Africa who was sent to a consulting surgeon here in London with a compound fracture of tibia and fibula, the bones being broken in four places. It was plated in South Africa, and by some accident the piece of bone in which the screws were fastened broke away. It was a case of taking the leg off, or testing my splint. The plate and screws were taken out of the fragments and I took a plaster cast of the leg in the Hospital two days afterwards. On the fourth day after the cast was taken the splint was put on and the patient walked across the ward. As many surgeons know, the Doctor-patient attended the Meeting every day, and took part in the festivities, and went back to South Africa two months later. The bones united beautifully (see Fig. 1), and as shortly afterwards there was a railway accident near his town he promptly applied his own splint to one of the sufferers—a man with a broken leg—with excellent results.

The same Doctor had occasion to send a patient to London with a badly united Pott's fracture for treatment, and in a letter of introduction he wrote to the patient: "It will interest you to know that my leg was broken in 4 places, 3 pieces of bone taken out. My leg was despaired of. I have no shortening and am able to do my work without any artificial aid at all."

The same principle which underlies the treatment of fractures—that is, by taking the weight off the leg and transmitting it from the tuber ischii on to the splint so that there is no weight on the solar surface of the foot when the patient walks—is applied to tubercular and arthritic joints, with the difference that more extension is needed. It is possible for me to apply from 10 to 20 lbs. continuous extension on either hip, knee, or ankle-joint while the patient is walking about, so that friction is absolutely prevented between the surfaces of the condyles, whilst the joint can be moved if necessary.

In face of the good results obtained by means of my Extension splint in cases of fractures and diseased joints I may maintain that the treatment with my splint has a *raison d'être*. I hope that in future when an inquiry is made the medical adviser will not say "I cannot recommend this treatment as I do not know anything about it," as I shall always be pleased to send a detailed description with illustrations upon application, but in no case do I supply an appliance without medical supervision.

Extract from THE LANCET, *Nov. 4th, 1911.*

"THE OPERATIVE TREATMENT OF BADLY UNITED FRACTURES.

..... I think it worth while to illustrate some of the difficulties one may meet by the consideration of two typical cases of badly united fractures. One represents a badly comminuted fracture of the femur which was operated on five months after the bone had been broken, and the other multiple fractures of the tibia and fibula operated on 12 weeks after the injury. Both cases had been under the care of very eminent surgeons, and in neither, apart from operation, was there the slightest prospect of restoring the patient to active usefulness.

FIG. 1.

Dr. S.——. Showing bones firmly united.

FIG. 5.

Case 2. Skiagram taken April 26th, 1911, showing reposition of parts after operation.

FIG. 6.

Case 2. Skiagram taken Sept. 11th, 1911 (with splint on), showing results of operation.

Both cases are illustrated by radiograms taken at intervals. They are of particular interest since they show the manner in which callus serves to render secure the junction of a broken and deformed bone in which it has been impossible to obtain any large area of bone apposition without shortening the limb very materially and so reducing its usefulness and the symmetry of the individual in a corresponding degree. ..... This entails the careful retention of the leg for a considerable time in an apparatus by means of which the weight of the body is transmitted from the tuberosity of the ischium to the boot. Such an apparatus enables the patient to get about at an early stage of convalescence, while the gorging of the limb with blood consequent upon the dependent position of the leg during locomotion assists very materially in the formation of callus. Great care should be taken to encourage this engorgement within reasonable limits and to avoid any direct pressure on the seat of fracture which is likely to reduce its blood-supply. Such a splint was made for me in both these cases by Mr. C. A. Hoefftcke, and it served its purpose perfectly.

The first case was that of a man, aged 46 years. On Feb. 1st, 1910, he fell in an aeroplane accident and sustained a very severe comminuted fracture of the upper part of the shaft of the right femur. ... The comminuted fragments were united by callus at a very bad angle, the union being scanty and imperfect. ..... On July 13th, 1910, the operation was performed. As was expected, it was only possible to utilise the blunt end and side of a spike of the lower fragment, which was placed in contact with a similar spike and blunt surface on the upper fragment. In this manner the length of the shaft was reduced by only half an inch. A very stout steel plate, secured by means of eight No. 7 screws, three-quarters of an inch in length, and threaded up to the head, was placed in position so as to retain the fragments immoveably and firmly together. Fortunately, the bone was very dense and strong. The patient made an uninterrupted recovery. On Sept. 13th, Mr. Hoefftcke fitted him with his splint and the patient gradually got about with increasing comfort and facility. He was finally able to discard the splint after wearing it for some months. He now gets about easily and leads a very active life. .....

The second case was that of a powerfully built man, aged 56 years. ..... He had sustained a severe comminuted fracture of the left tibia and fibula in December, 1910. The fractures were produced by direct injury, and there was much damage to the soft parts. The tibia and fibula were each broken in two parts, so that there were six separate large fragments of bone. Besides these there were several smaller pieces. ..... The leg was operated on 12 weeks after the accident. ..... The patient made an uninterrupted recovery. Mr. Hoefftcke fitted a splint on May 8th, 1911, and the patient soon learnt to use it. Figs. 5 and 6 (with splint on) show the condition of the bone at intervals of five and seven months after the injury. The amount of new bone that continued to form even after the fragments of the tibia had apparently become firmly united was considerable." *My splint was taken off on the 11th Sept. and the patient walks now without a limp or any artificial aid.*

Two Lectures
ON
UNICELLULA CANCRI:
THE PARASITE OF CANCER.

Delivered before the Royal College of Surgeons of England

BY SIR HENRY BUTLIN, BART., F.R.C.S.,
PAST PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND; HUNTERIAN PROFESSOR.

LECTURE I.—THE PROTOZOA.

MR. PRESIDENT AND GENTLEMEN,—In the Bradshaw lecture of November, 1905, I put forward the proposition that "the carcinoma cell is an independent organism, like many a protozoon; that it lives a life which is wholly independent and proper to itself; and that it lives as a parasite in the body of the animal which is affected with carcinoma, deriving its nourishment from this host, and doing nothing to repay the host for the sustenance of which it robs him."[1] Until shortly before I delivered the lecture I thought that I was the first person to suggest that the cancer cell is itself the parasite of cancer, but I found that Hauser had done so in 1903.[2] And a couple of years ago Dr. Powell White showed me that he had done so in the Erasmus Wilson lectures at the Royal College of Surgeons as long ago as 1902.[3] But I think that neither White nor Hauser had carried the matter to its logical conclusion, so far as to insist that the cancer cell is a new organism—a new creation of animal being—not a mere changed cell.*

INTRODUCTORY REMARKS.

So far as I know, then, I stood alone in the belief that the cell of carcinoma is a new creation of living beings, consisting of a single cell, and governed by natural laws just as clear and just as defined as those which govern single-cell organisms which are recognised by naturalists. In 1905 I maintained this view only for the cells of carcinoma. For the last five years and more the matter has been constantly before my mind. A great deal of new information and material has been provided during that period, and I am able now to maintain the view, not only for carcinoma, but for every variety of malignant disease.

I am quite aware that my ignorance of biology and of the lowest forms of animal life may render my attempt ridiculous in the eyes of naturalists. And I should never have ventured to undertake the task had there been any person particularly fitted for it, and willing to accept it. A wide grasp of three kinds of knowledge is required—a knowledge of the protozoa, experience of experimental investigation of cancer, and experience of the clinical pathology of cancer in the human subject. I do not know any one person who combines these three kinds of knowledge in himself.

There is only one distinguished protozoologist, so far as I know, who is engaged in the investigation of cancer—Professor Calkins, of the Columbia University, of New York—and he is not a medical man. And it is, I am sorry to say, notorious that the masters of experimental investigation are, for the most part, very ignorant of the clinical pathology of cancer, while it is equally true that the physicians and surgeons who have studied cancer from the clinical and microscopical aspects are not acquainted with protozoology or with experimental investigation.

The class to which I have the honour to belong—the clinical pathologists—is looked down upon by the other two classes, and I have been told that its day is past. But I claim a right to present my theory on the ground that I have spent a great deal of time in the course of many years in the study of the clinical pathology of cancer, and that I have been closely observant of the actual work of the Imperial Cancer Research since its foundation, have constantly associated with the staff, and have been a member of the Publication Committee of all the scientific reports which have been published by the Research On the other hand, I am wholly dependent for my statements on the life-history of the protozoa on the works of Calkins and Doflein, and the references which I have found in them, and to some pretty sharp criticism of my views in a letter which Professor Calkins was kind enough to write me.

I shall divide the subject into two parts. In the first part I shall endeavour to show that there is no essential difference between cancer cells and certain other parasites in the relation to their host. In the second part I shall show that almost all the phenomena of cancer with which I am acquainted can be readily explained on this theory. The parasites of which I am going to speak are the protozoa; I am not going to speak of such micro-organisms as bacilli and bacteria. I use the protozoa not because I intend to insist that the cancer cells must be included amongst the protozoa, but because they most closely resemble the protozoa in their relation to the body of the host, and perhaps in their mutual relations.

SOME CHARACTERISTICS OF PARASITIC PROTOZOA.

Certain of the protozoa appear only to live as parasites, whilst others of them are never parasitic, and others, again, are able to exist either as parasites or external to the body of any host. The powers of the parasites are strangely and strictly defined. Doflein[4] (of whose work I am going to make very free use) says:—

> When a protozoon gets into another organism there begins at once a fight between the two, which ends in an easy victory of the larger, many-celled beast if the protozoon is not a parasite, and if the many-celled beast enjoys its normal natural resistance. But if the protozoon is fitted for parasitism then the fight is in earnest. And in this fight that organism conquers which is able to overcome the other with its fighting weapons.[5]

But it is quite certain that every parasitic protozoon which finds its suitable host does not succeed in holding its own against the resistance of the host.

Many groups of parasites are limited to certain groups of hosts—the Sarcosporidiidæ, for instance, to air-breathing vertebrates—whilst the Gregarinidæ have not been found in vertebrate hosts.[6] But the limitations are much more strict than this. For, of the same species of parasite, different varieties are found in different varieties of a species of host. Thus, the Sarcosporidiidæ, which are believed to be exclusively found in mammals,[7] and which have been found in horses, cows, buffaloes, mice, rats, man, &c., do not all occur equally and at random in all these animals, but certain varieties of the Sarcosporidiidæ occur only in certain varieties of mammal. *Sarcocystis miescheriana* inhabits the body of the pig; *Sarcocystis tenella* loves the sheep; while *Sarcocystis muris* is a parasite of the house-mouse and the rat. And those varieties of parasite which are particular to certain varieties of mammal, as the *Babesia bigemina* is to cattle, cannot be implanted in other mammals. Experiments which have been made on rats, guinea-pigs, sheep, and pigeons have always failed.[8] On the other hand, there are parasites which can exist in several or many varieties of host, yet even these exhibit strange powers of selection. Thus, *Trypanosoma brucei* and *Trypanosoma lewisi* can breed in dogs, in the blood of the same animal, but if they are injected from this blood into rats, *Trypanosoma brucei* disappears, and only *Trypanosoma lewisi* lives and thrives.[9]

Just as particular varieties of protozoa are limited to particular varieties of host, so they are often limited in like manner to particular parts of the bodies of their hosts. Thus, the Sarcosporidiidæ are parasites of muscles; Trypanosoma is a blood parasite; the Coccidiidæ are parasites of cells, particularly of epithelial cells.[10] But they exhibit powers of selection much more marked than this. *Myxobolus cyprini* is a parasite of the kidney epithelium of the carp. The Sarcosporidiidæ not only affect the muscles, but most of the varieties affect particular muscles or groups of muscles. Thus, *Sarcocystis miescheriana* takes to the muscles of the larynx, to the diaphragm, and intercostal muscles; *Sarcocystis muris* affects the muscles of the trunk. And although several varieties of Sarcosporidiidæ are chiefly found in the muscles in the neighbourhood of the alimentary canal, which they may have easily reached from the mouth or œsophagus, others of them are found in muscles far distant from the alimentary canal, such as the intercostal muscles or the muscles of the trunk. Other parasites appear to be equally at home in several or many tissues of the host. *Nosema bombycis* (which produces the pébrine disease of the silkworm) occurs in the intestine, the fat bodies, the sexual organs—in short, in all the organs of the *Bombyx mori*.

* "All the phenomena of malignant and other tumours can be explained on other grounds—viz., on the view that the cells take on an independent mode of growth, and behave as parasites themselves." "Once the cells have acquired this habit (Adami's Habit of Growth) they behave as independent parasites." (White, loc. cit.)

And, far more remarkable and interesting than this, is the generalisation which may take place of parasites which are usually limited to a single structure of the host. Thus, *Myxobolus pfeifferi*, which is usually a harmless parasite in the kidney of the barbel, makes terrible havoc of the same fish in the water of certain rivers (the Seine, the Marne, the Maas, the Rhine, and Mosel), where it attacks almost all the organs of the body of the fish—the connective tissue of the intestine, the kidney, the spleen, the liver, but, above all, the muscular system, in which it forms great lumps and tumours, which stand out on the surface of the animal, and are quite characteristic of the barbel-sickness (*Barbenseuche*)[11] (Figs. 1 and 2).

Migration of Parasitic Protozoa.

It is possible that the protozoa, which are parasitic (some of them, at least), take an active part in their migration. But they are also carried in the blood and lymph to the organs and tissues in which they are generalised. Thus, *Isospora lieberkühni* (a parasite of the frog) first attacks the epithelium of the intestine, then penetrates into the vessels of the mucous membrane, and is carried by the blood to the lungs, liver, spleen, and other parts. *Entamœba histolyca*, the parasite of dysentery, makes its way through the walls of the rectum, and is supposed to be conveyed through the ductus choledochus into the liver. *Lymphosporidium salkins* (which produces severe epidemics in fish) appears in the form of small amœboid bodies in the lymph, attacks the muscles of the intestines and other organs, passes again into the lymph in its developed form, and produces numerous spores, which are conveyed to all parts of the body. It is interesting to observe the changes which take place in many of the protozoa, either to adapt them to parasitism or to altered conditions of life in the bodies of different hosts. Thus the Trypanosoma will vary in size, in the situation of its nucleus, &c., according to the medium in which it lives. *Trypanosoma lewisi* loses its undulating membrane in certain artificial cultures, and the Sarcosporidiidæ are not constant in form, for the cells, closely packed together during their development, mutually deform one another.[12]

Of liability of animals of the same species to a particular parasite, the evidence goes to prove that some individuals of a species are immune to the attack of a parasite, other individuals recover from the attack of a parasite, while other individuals again suffer badly from it or die. Take, as an example, the hæmoglobinuria of cattle (Texas fever), which is attributed to *Babesia bigemina*, a parasite which is not directly transferred from cow to cow, but is introduced into the cattle by a beetle (*Boophilus annulatus*).[13] Whole herds are attacked in the plains of Texas. But all the animals do not show symptoms of the disease, and some of those which are attacked recover. Pigniéres gives an account of a herd of 1000 adult cattle and 450 calves. Of the adults 630 died—an enormous mortality—but only 10 of the 450 calves perished of the disease. Calves, if they suffer at all, suffer mildly. There is generally no hæmoglobinuria, and at the end of a fortnight they are often quite recovered. Nevertheless, the *Babesia* may still be found in the blood of these recovered calves, so that they appear to have acquired immunity against the poison of the parasite. Whether they can be artificially immunised by the injection of the blood of beasts which have been cured of the disease has not yet been clearly ascertained.

Liability of Parasitic Protozoa to Death.

Although some of the parasites are able to take formed nourishment, most of them, and all the cell parasites, live by osmosis.[14] The Sporozoa, for instance, live exclusively by the osmotic taking of fluid nourishment.[15] Many of them perish with their host, for even if they escape from the dead body of the host, they may be unable to exist outside the body of a host. But they often exhibit a marked tenacity of life; for they may live for days after the death of the host, and of every tisue and cell of the host.

With regard to the liability of parasitic protozoa to death, it is held by Weismann and his school that the protozoa are immortal, in the sense that the young animals are in part composed of the substance of the parent. As a matter of fact, they undergo degeneration, are liable to disease, fade, waste, and die, like other living creatures; and they are often killed by the invasion of their bodies by micro-organisms—the bacteria—which are then parasites of parasites. I must ask you to bear this in mind when we come to consider the cells of cancer presently.[16] It appears probable that the body of the host contains, or may produce on demand, a substance dangerous to the life of the parasite which is in it. Of this the parasite may die. But if it can withstand the dangerous substance it seems to gain greater strength. It has acquired immunity by its successful resistance to the dangerous substance, and may flourish more actively than before. But the activity of a parasite is probably not always the same. For, as they show alternate periods of activity and depression in cultures, eating more, growing faster, multiplying abundantly at one time, and displaying sluggard qualities at another (Actinosphæria, Infusoria, &c.), so it is probable they are subject to similar periods of activity and depression in the body of the host.[17] Whether, during these periods of depression they are devoured alive by phagocytes I do not know, but their dead bodies appear to be eaten by phagocytes.[18]

Effects of the Parasites on their Hosts.

The effect of parasites on their hosts depends largely on whether they produce toxins dangerous to the host or not. Many of them (such as the parasite of malaria) are toxic. And these are naturally much more dangerous to the host than the non-toxic parasites. But their virulence varies, like their vital activity; they are seldom or never so actively virulent as the bacteria and bacilli, and take much longer to produce serious or fatal illness in the host. The non-toxic parasites are much less dangerous to life. They are often unperceived—are mere "commensales." But they may destroy the cells and tissues which they attack to such an extent as to produce serious effects upon the health of the host. They may destroy the host by enormous increase in numbers, and particularly by interfering with the working of vital organs. I have already mentioned the barbel-sickness, which is so fatal to the fish in France and Germany. The tumours sometimes ulcerate. The Coccidiidæ appear to produce their effects by destruction of the tissues they invade. *Eimeria stiedæ*—a common coccidium of the rabbit—causes the formation of tumours which may grow as large as a hazel-nut, and contain fluid, in which are found quantities of epithelial cells and coccidia.[19] *Lymphosporidium salkins* (a parasite of fish to which I have already referred) is apt to fill the lymph vessels so full that serious disturbance, the formation of ulcers, and death result from the stoppage of the flow of lymph.[20] *Sarcocystis tenella* sometimes chokes sheep by producing great sarcosporidian tumours in the neighbourhood of the air passages.[21]

It seems probable that some parasites are capable of existing during long periods of time, even when they are not living their usual life, in the sense that a parasite which is, under ordinary circumstances, toxic to the host, may cease to be toxic, yet still exist. Thus, *Babesia bigemina* is often found in the blood of calves which have long recovered from the disease which it produces. It is well known that human beings who have contracted malaria may recover from it and may live for years without an attack, and then may be suddenly and unexpectedly attacked, even when they have been living meanwhile in non-malarial regions. It is evident the parasite is living in the body of the host during this long period, but it is almost equally evident that it just maintains its existence, and has lost its activity in the face of the increased resistance of the host.

Explanation of Power of Selection.

It will be noticed that I have used the term "power of selection" in speaking of the predilection of particular parasites for particular species of animals, for particular varieties of those species, and for particular organs and tissues of their hosts. The only reasonable explanation of these predilections is that the parasite finds the nourishment suitable to it in the particular host and parts of the host which it infests, or encounters less resistance there. *Eimeria stiedæ*, for instance, which is contained in the grass on which many animals are feeding, must have an opportunity of entering the alimentary canal of cows, of horses, of sheep, and other animals. And undoubtedly it does enter it. But the only one of the animals which feed on the grass in which they are so abundant which harbours and nourishes the parasite is the rabbit. The waters which contain *Myxobolus pfeifferi* also contain *Myxobolus cyprini* and *Myxobolus neurobius*, and all kinds of fish which inhabit these waters must swallow myriads of all three varieties of parasite. But only the one particular parasite thrives in the one particular

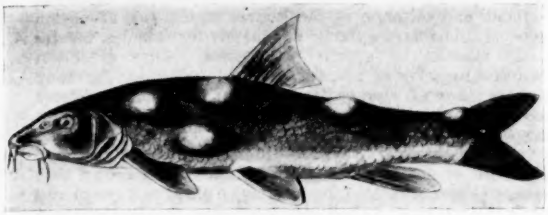


FIG. 1.—Barbel suffering from *Barbenseuche*; tumours formed by *Myxobolus pfeifferi* (after Doflein). *Protozoenkunde*. II. Aufl., Jena, 1909, Fig. 730.

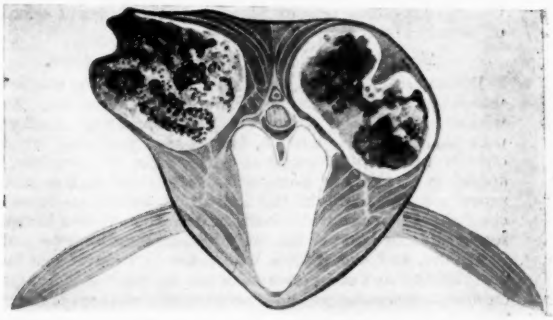


FIG. 2.—Section of a barbel, showing symmetrical tumours, that on the right side ulcerated (Doflein, Fig. 731).

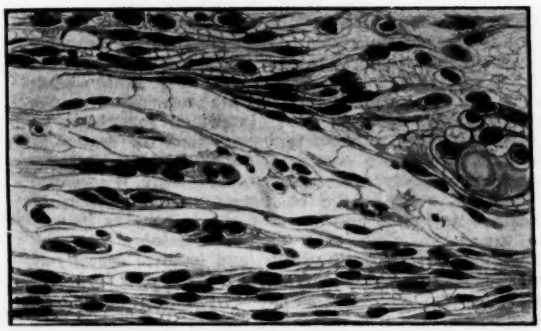


FIG. 3.—Squamous carcinoma of tongue, the cells of which are elongated like spindle-cells.

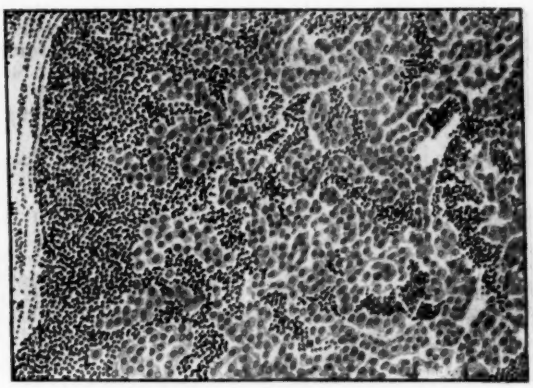
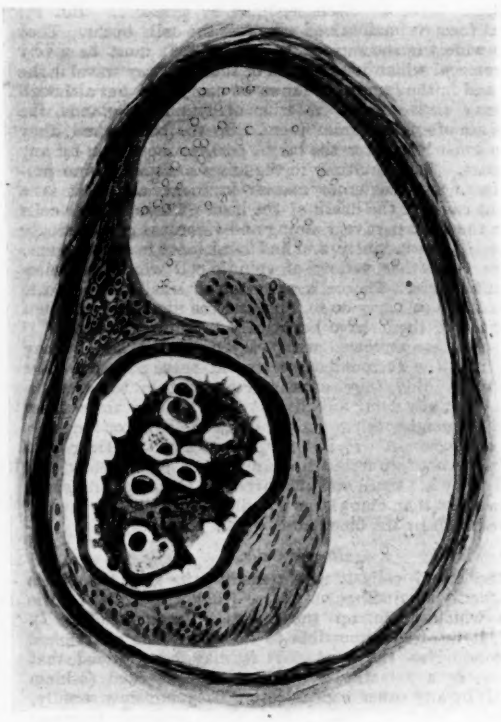


FIG. 4.—Axillary glands removed 20 years after successful removal of the breast.*



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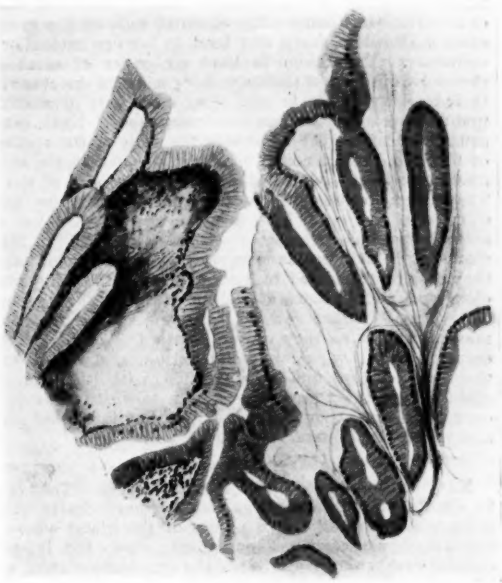

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And, far more remarkable and interesting than this, is the generalisation which may take place of parasites which are usually limited to a single structure of the host. Thus, *Myxobolus pfeifferi*, which is usually a harmless parasite in the kidney of the barbel, makes terrible havoc of the same fish in the water of certain rivers (the Seine, the Marne, the Maas, the Rhine, and Mosel), where it attacks almost all the organs of the body of the fish—the connective tissue of the intestine, the kidney, the spleen, the liver, but, above all, the muscular system, in which it forms great lumps and tumours, which stand out on the surface of the animal, and are quite characteristic of the barbel-sickness (*Barbenseuche*)[11] (Figs. 1 and 2).

Migration of Parasitic Protozoa.

It is possible that the protozoa, which are parasitic (some of them, at least), take an active part in their migration. But they are also carried in the blood and lymph to the organs and tissues in which they are generalised. Thus, *Isospora lieberkühni* (a parasite of the frog) first attacks the epithelium of the intestine, then penetrates into the vessels of the mucous membrane, and is carried by the blood to the lungs, liver, spleen, and other parts. *Entamœba histolyca*, the parasite of dysentery, makes its way through the walls of the rectum, and is supposed to be conveyed through the ductus choledochus into the liver. *Lymphosporidium cælkins* (which produces severe epidemics in fish) appears in the form of small amœboid bodies in the lymph, attacks the muscles of the intestines and other organs, passes again into the lymph in its developed form, and produces numerous spores, which are conveyed to all parts of the body. It is interesting to observe the changes which take place in many of the protozoa, either to adapt them to parasitism or to altered conditions of life in the bodies of different hosts. Thus the Trypanosoma will vary in size, in the situation of its nucleus, &c., according to the medium in which it lives. *Trypanosoma lewisi* loses its undulating membrane in certain artificial cultures, and the Sarcosporidiidæ are not constant in form, for the cells, closely packed together during their development, mutually deform one another.[12]

Of liability of animals of the same species to a particular parasite, the evidence goes to prove that some individuals of a species are immune to the attack of a parasite, other individuals recover from the attack of a parasite, while other individuals again suffer badly from it or die. Take, as an example, the hæmoglobinuria of cattle (Texas fever), which is attributed to *Babesia bigemina*, a parasite which is not directly transferred from cow to cow, but is introduced into the cattle by a beetle (*Boophilus annulatus*).[13] Whole herds are attacked in the plains of Texas. But all the animals do not show symptoms of the disease, and some of those which are attacked recover. Pigniéres gives an account of a herd of 1000 adult cattle and 450 calves. Of the adults 630 died—an enormous mortality—but only 10 of the 450 calves perished of the disease. Calves, if they suffer at all, suffer mildly. There is generally no hæmoglobinuria, and at the end of a fortnight they are often quite recovered. Nevertheless, the *Babesia* may still be found in the blood of these recovered calves, so that they appear to have acquired immunity against the poison of the parasite. Whether they can be artificially immunised by the injection of the blood of beasts which have been cured of the disease has not yet been clearly ascertained.

Liability of Parasitic Protozoa to Death.

Although some of the parasites are able to take formed nourishment, most of them, and all the cell parasites, live by osmosis.[14] The Sporozoa, for instance, live exclusively by the osmotic taking of fluid nourishment.[15] Many of them perish with their host, for even if they escape from the dead body of the host, they may be unable to exist outside the body of a host. But they often exhibit a marked tenacity of life; for they may live for days after the death of the host, and of every tisue and cell of the host.

With regard to the liability of parasitic protozoa to death, it is held by Weismann and his school that the protozoa are immortal, in the sense that the young animals are in part composed of the substance of the parent. As a matter of fact, they undergo degeneration, are liable to disease, fade, waste, and die, like other living creatures; and they are often killed by the invasion of their bodies by micro-organisms—the bacteria—which are then parasites of parasites. I must ask you to bear this in mind when we come to consider the cells of cancer presently.[16] It appears probable that the body of the host contains, or may produce on demand, a substance dangerous to the life of the parasite which is in it. Of this the parasite may die. But if it can withstand the dangerous substance it seems to gain greater strength. It has acquired immunity by its successful resistance to the dangerous substance, and may flourish more actively than before. But the activity of a parasite is probably not always the same. For, as they show alternate periods of activity and depression in cultures, eating more, growing faster, multiplying abundantly at one time, and displaying sluggard qualities at another (Actinosphæria, Infusoria, &c.), so it is probable they are subject to similar periods of activity and depression in the body of the host.[17] Whether, during these periods of depression they are devoured alive by phagocytes I do not know, but their dead bodies appear to be eaten by phagocytes.[18]

Effects of the Parasites on their Hosts.

The effect of parasites on their hosts depends largely on whether they produce toxins dangerous to the host or not. Many of them (such as the parasite of malaria) are toxic. And these are naturally much more dangerous to the host than the non-toxic parasites. But their virulence varies, like their vital activity; they are seldom or never so actively virulent as the bacteria and bacilli, and take much longer to produce serious or fatal illness in the host. The non-toxic parasites are much less dangerous to life. They are often unperceived—are mere "commensales." But they may destroy the cells and tissues which they attack to such an extent as to produce serious effects upon the health of the host. They may destroy the host by enormous increase in numbers, and particularly by interfering with the working of vital organs. I have already mentioned the barbel-sickness, which is so fatal to the fish in France and Germany. The tumours sometimes ulcerate. The Coccidiidæ appear to produce their effects by destruction of the tissues they invade. *Eimeria stiedæ*—a common coccidium of the rabbit—causes the formation of tumours which may grow as large as a hazel-nut, and contain fluid, in which are found quantities of epithelial cells and coccidia.[19] *Lymphosporidium cælkins* (a parasite of fish to which I have already referred) is apt to fill the lymph vessels so full that serious disturbance, the formation of ulcers, and death result from the stoppage of the flow of lymph.[20] *Sarcocystis tenella* sometimes chokes sheep by producing great sarcosporidian tumours in the neighbourhood of the air passages.[21]

It seems probable that some parasites are capable of existing during long periods of time, even when they are not living their usual life, in the sense that a parasite which is, under ordinary circumstances, toxic to the host, may cease to be toxic, yet still exist. Thus, *Babesia bigemina* is often found in the blood of calves which have long recovered from the disease which it produces. It is well known that human beings who have contracted malaria may recover from it and may live for years without an attack, and then may be suddenly and unexpectedly attacked, even when they have been living meanwhile in non-malarial regions. It is evident the parasite is living in the body of the host during this long period, but it is almost equally evident that it just maintains its existence, and has lost its activity in the face of the increased resistance of the host.

Explanation of Power of Selection.

It will be noticed that I have used the term "power of selection" in speaking of the predilection of particular parasites for particular species of animals, for particular varieties of those species, and for particular organs and tissues of their hosts. The only reasonable explanation of these predilections is that the parasite finds the nourishment suitable to it in the particular host and parts of the host which it infests, or encounters less resistance there. *Eimeria stiedæ*, for instance, which is contained in the grass on which many animals are feeding, must have an opportunity of entering the alimentary canal of cows, of horses, of sheep, and other animals. And undoubtedly it does enter it. But the only one of the animals which feed on the grass in which they are so abundant which harbours and nourishes the parasite is the rabbit. The waters which contain *Myxobolus pfeifferi* also contain *Myxobolus cyprini* and *Myxobolus neurobius*, and all kinds of fish which inhabit these waters must swallow myriads of all three varieties of parasite. But only the one particular parasite thrives in the one particular

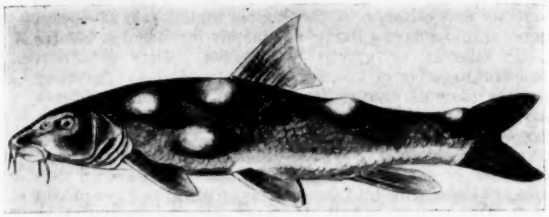


FIG. 1.—Barbel suffering from *Barbenseuche*; tumours formed by *Myxobolus pfeifferi* (after Doflein). *Protozoenkunde*. II. Aufl., Jena, 1909, Fig. 730.

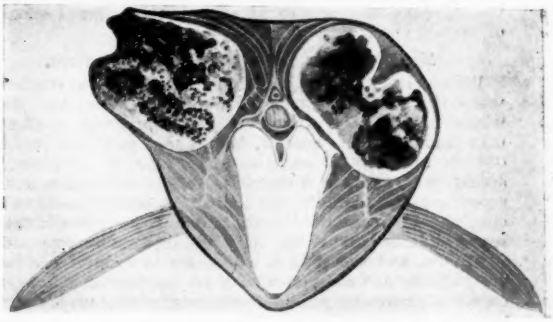


FIG. 2.—Section of a barbel, showing symmetrical tumours, that on the right side ulcerated (Doflein, Fig. 731).

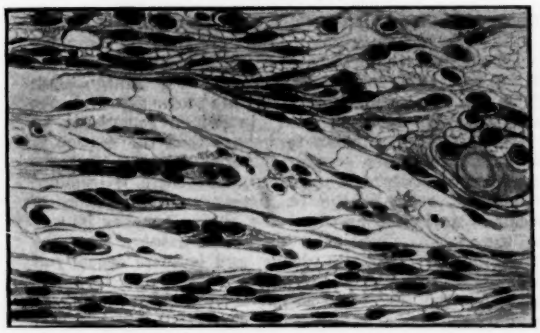
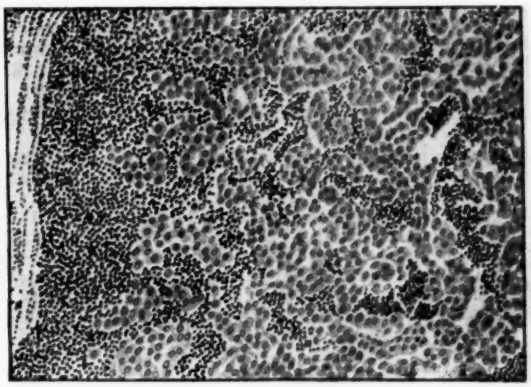


FIG. 3.—Squamous carcinoma of tongue, the cells of which are elongated like spindle-cells.



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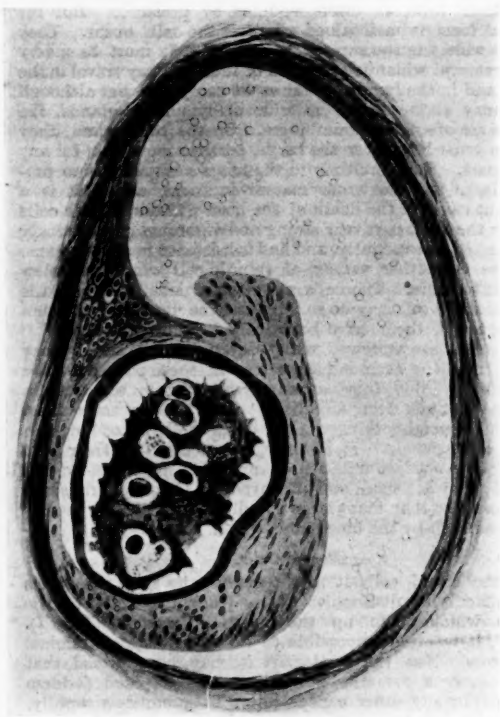

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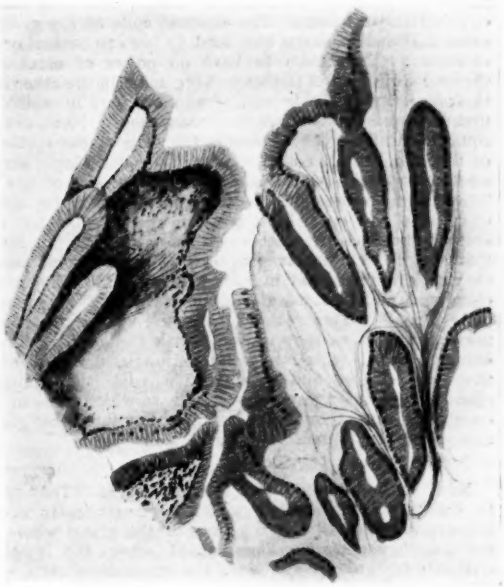

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variety of fish which it affects. I would keep constantly before your minds this explanation of the power of selection of parasitic protozoa.

Two Characters Common to Parasitic Protozoa.

Before leaving the parasitic protozoa, two characters which they have in common should be referred to. First, whatever office the parasite may serve, whatever effect it may produce on the host, it, for its own part, has only two objects in view, if such an expression is permitted in speaking of so lowly a creature. It strives to live and to reproduce—to maintain the individual and to continue the species. If, in a suitable host, it does not succeed in reaching a suitable part of the body within a reasonable period it will die, and the species will cease to exist in that host. The rapidity and completeness of its destruction will depend on many circumstances, but the general statement is correct. Second, it breeds true. The young animals are always of the same species as the animals from which they were derived. I believe some doubt has been expressed whether Hæmosporidiidæ may not be derived from Flagellidia.[22] I am not competent to speak on this, but it may be stated quite certainly that Sporozoa are not bred from Rhizopoda or Rhizopoda from Ciliata—that *Sarcocystis miescheriana* does not become *Sarcocystis muris*, and that *Nosema bombycis* never produce *Nosema destruens* or the reverse.†

I now come to the

COMPARISON BETWEEN THE CANCER CELL AND THE PARASITIC PROTOZOA

in their life-history and their relation to the host. And I propose to treat it in the reverse order, taking the individual cells first, and dealing with the characters which they have in common afterwards. First, I must premise that there is no one cell for every kind of malignant disease, nor is there one cell for the carcinomata and another cell for the sarcomata. Every variety of malignant tumour has its own typical cell, and the characters, the selection of locality, and relations of each variety of cancer cell to the host are sharply defined, and differ as widely as, though not more widely than, those of the varieties of protozoa which belong to the same species.

Characters of Cancer Cells.

Take first the cells which resemble the cells of the deeper layers of the epidermis or of the appendages of the skin. They are very regular in size and shape, and are collected in masses in spaces of the connective tissue, usually of the skin or subcutaneous tissue. The external cells of the group are often modified in shape and tend to become cubical or even columnar. They seem to have no power of establishing themselves in distant tissues and organs. On the other hand, their tenacity of life in and around the part in which they first appeared is little less than marvellous. Next, take the squamous cells. They resemble the cells of the epithelium of the skin, but are not so regular in size and shape, and the nuclei are large—out of proportion to the size of the cell. They form masses which sometimes recall the natural dipping of the epithelium between the papillæ, but often seem to be massed together with no further design than to find sitting, or even standing, room. And in this attempt they are often squeezed in such a manner that they may be elongated and look more like spindle cells than squamous cells (Fig. 3). They extend into the spaces between the muscular fibres as they grow beneath the surface, forming columns of cells which are easily distinguishable. Whenever they are in close and easy relation with the lymphatic glands, it may be accepted as a rule to which there are few exceptions, that they will find their way into those glands, and will grow and multiply there.

Cells of Spheroidal Type.

Now, consider the cells of spheroidal type. They collect in spaces of the connective tissue, sometimes in such a manner as to recall the structure of the gland whose epithelium they pattern. They spread along the lymphatic channels and are conveyed into the lymphatic glands, where they are well received and flourish. They are conveyed by the blood into other organs. They can live and multiply in many organs; but they select, by preference, the liver and lungs, and the medullary tissue of the bones, particularly of the femur and vertebræ of the lumbar region, just as certain sarcosporidiidæ have a liking not merely for muscles, but for certain muscles or groups of muscles. They exhibit a wonderful tenacity of life, for, after lying dormant for many years (as many as nine or ten or more), they may suddenly thrive and multiply and produce large masses of their like in the space of a few weeks or months (Fig. 4). Although they are probably chiefly conveyed to different regions of the body in the form of single young cells, it is also well known that masses of them grow into the interior of blood and lymphatic vessels,[23] and that emboli of them may be carried into parts which are favourable to their reception. It is also known that many of them perish in their journeying. They may be found in blood-vessels and in the thoracic duct in a condition of degeneration and decay (Fig. 5).

Columnar or Cylindrical Cell.

One of the most interesting and favourable objects of study is the columnar or cylindrical cell. It resembles the cells of the columnar glands of the alimentary tract (Fig. 6). Its tendency is to arrange itself in the same fashion as the columnar cells are arranged in the glands of the stomach and intestine, sometimes so precisely that it is difficult to believe that the section of the carcinoma is not a section of normal glands. But the imitation is usually much coarser, and there is evidence of slovenly work in the characters and disposition of the cells. As in the previous case, the cell makes its way into the surrounding and subjacent tissues, into the lymphatics and lymphatic glands, and is there speedily at home. It also has a great fancy for the liver, and, in a less degree, for the lung, and it now and then grows in the medullary tissue of one of the long bones—the humerus, for example—or such a flat bone as the ilium.

Spindle Cells.

Now consider the group of spindle cells. They are elongated, tapering at each end. They vary much in size, and their form is often modified by pressure. But the general form is maintained wherever the cells occur. They spread widely in the surrounding tissues. It must be a very wide removal which is to get rid of them. They travel in the blood and in the lymph, so far as we can judge, but although they may thrive in the interior of lymphatic glands, the glands are often free from them. On the other hand, they have a great liking for the lungs, perhaps more than for any other part. They multiply in the lungs so rapidly as to produce large and numerous masses in them, and that is a frequent cause of the death of the host. These spindle cells are for the most part very strong and vigorous, grow quickly and multiply abundantly, and find subsistence in many organs.

There is another variety of spindle cell which multiplies to form tumours. The cells are often of small size, and the outline of the cell may be so faint and the nucleus so distinct that some of them have been called "fibro-nucleated."[24] These cells are endowed with very limited powers. They spread into the surrounding parts; in these parts they live and thrive. But they appear quite unable to effect a successful attack upon any distant part, for they are not met with in the neighbouring glands, or in the liver, or lungs, or bones, or elsewhere. It is no excuse to say that their form and size are not favourable to transference by the blood and lymph. They are small and of convenient shape for transfers, much more so than many large spindle cells which are readily conveyed both by the blood and lymph.

Round Cells.

Of the round cells it may generally be said that it is very difficult to distinguish them from the cells of the masses which make up the infective tumours (Fig. 7). Indeed, it is often impossible to do so by their anatomical characters. For the most part it may be affirmed that they possess a remarkable vitality, not exceeded (seldom equalled) by any other cancer cell. They multiply rapidly, so rapidly that in some cases they produce immense masses in a few weeks, and the growth of the mass may be associated with symptoms of general fever. They seem much less influenced by the resistance of the host, or much more capable of finding nourishment, or less dependent on a very special diet, than most other cancer cells. For they seem very little limited to particular organs and tissues compared with most other varieties of cell. They flourish in

† There are other properties on which I must not touch, such as the periodicity which some of the protozoa exhibit in relation to their vitality. Time will not permit me to do so. (Calkins, Protozoology, 1909, p. 106.)

the lymphatic glands, if they reach them, in the bones, skin, and subcutaneous tissue, kidneys, liver, lungs—indeed, like *Nosema bombycis*, almost everywhere. I believe they would spread all over the body if the host were not destroyed by them before they have had the opportunity to do so.

Giant Cells.

There is one variety of cell which I must not pass over without notice—the giant cell. These cells only form a certain proportion of the masses in which they occur—less than one-half—and the remainder of the mass is composed usually of spindle cells. Having regard to their size alone it is not surprising that giant cells travel with difficulty in the blood and lymph. It would be expected that the spindle cells of which the mass is chiefly formed might travel and establish themselves in other places. But it is notorious that they seldom do so.

Resemblances of Cancer Cells to Parasitic Protozoa.

These examples will suffice to illustrate some of the resemblances of the life-history of the cancer cell to that of the parasitic protozoa. It will be seen that they are as careful in the selection of locality as are the varieties of parasitic protozoa. They spread in the interstices of the tissues in which they first appear, as do certain of the protozoa. They are conveyed in the blood and lymph, as the parasitic protozoa are. They are deposited in distant tissues and organs, like the parasitic protozoa, and they show just the same predilection for certain tissues and organs as do the protozoa. They are like many of the parasitic protozoa in the fact that they live almost entirely by osmosis. Like the protozoa, they sometimes live for long periods of time in the body of the host without any sign of their presence, and perhaps in a state of lethargy, until their vigour and activity are restored to them by some lowering of the resistance of the host, or by some change in the part in which they had been lying, which renders it more suitable to their necessities. They do not appear to furnish toxins which are dangerous to the health of the host, so that their effects are produced (like the effects of such parasites as *Myxobolus pfeifferi*) by mechanical causes—destruction of the tissues in which they live and multiply, the stoppage of blood and lymphatic vessels, and

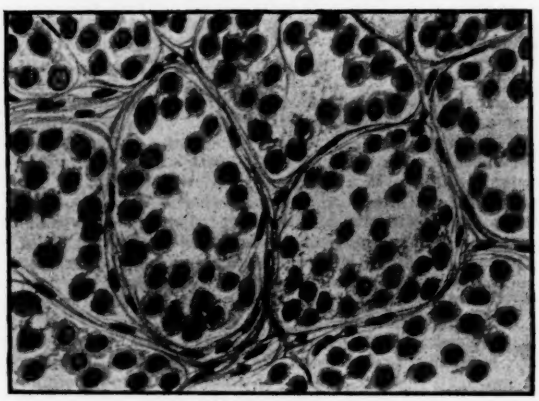

FIG. 7.—Large round-celled sarcoma of testis.

the changes consequent on this stoppage. These conditions are naturally more dangerous when they affect the vital parts. On the other hand, when like the protozoa the cancer cells are attacked by pathogenic organisms, bacteria and bacilli (as is almost invariably the case when they become exposed), they are rapidly destroyed, sometimes in great masses, and the effect upon the host is disastrous.

Some cancer cells can live for a long time outside the body of the host, although they do not, so far as we know, belong to the class of organisms which are sometimes parasitic, sometimes not parasitic. I am not aware of any investigations to discover the longest period during which cancer cells can exist outside the body of the host. We want further information on this point. But it is certain that they can live for weeks in glass tubes and then be implanted, as if they were just taken from the mass in which they lived. At present the cancer cells can only be implanted with success in animals of the same species as the animal from which they were taken. In this respect, again, they resemble certain of the protozoa. It may be that, with greater practice and experience, they will be induced to grow and multiply in animals of a different species, but I very much doubt it, just as I doubt whether *Babesia bigemina*—a parasite of cattle—will be successfully implanted in a sheep. Cancer cells, like the parasitic protozoa, are never transformed into tissues of the host, and the structures which they cause to be built up are for their own service, not for the service of the host. They are not themselves transformed into any other kind of tissue, nor do they transform the cells of the body into cancer cells. From the moment they are first unmistakably cancer cells, they remain cancer cells, and from that moment they pursue only those two objects which are pursued by the protozoa—to live and to reproduce. And if they fail in these objects both the individual and the species perish. Of this ample evidence has been furnished in these last years, particularly by the Imperial Cancer Research for animals, and by Sir Alfred Pearce Gould for man.[25] In reproduction they breed as true as any protozoon. Not only do carcinoma cells reproduce carcinoma cells and not sarcoma cells, but it is invariably the same variety of cell which is reproduced, with the same properties and powers and characteristics. It has been said that the cancer cells differ from the protozoa in the circumstance that they are not constant in their method of reproduction, that they multiply by budding or by mitosis, as pleases them, and that the protozoa never do so. If all the protozoa were thrown into a common receptacle for study they would also be found to vary in their method of reproduction. I believe it is only because the cancer cells have been treated in this fashion that they seem to be subject to no method. But separate them and study them in families, and I think it will be found that they are just as bound in this respect as the families of protozoa. I suspect that the old rule which was laid down (I do not remember by whom or exactly when) is as correct now as it was—that the cells of carcinoma multiply by endogenous multiplication, and that the cells of sarcoma multiply by fission or by budding. The terms used may be different, but I suspect the facts will be the same.

Physiological Characters of the Cancer Cell.

I will not describe the physiological characters of the cancer cell in my own terms, for fear it should be thought that I exaggerate. I will quote Professor Calkins[26]:—

> Functionally the carcinoma cell is a more perfect type than its orderly colleagues of the epithelium. It takes in and assimilates abundance of food, grows rapidly (especially when near the immediate source of food—that is, at the growing edge), and reproduces its kind through the same complicated processes that characterise free living cells. In short, it is a complete animal organism in itself, simulating in many ways the parasitic protozoon, but differing in some of the most important respects connected with the continued life of the latter.

I understand that the important respects in which the cancer cell differs from the parasitic protozoa are:—

> 1. "That the cancer cell, so far as we know, undergoes no processes analogous to fertilisation."[27] 2. "That it cannot live apart from the organism in which it grows; it cannot be cultivated on artificial media, as we cultivate amœbæ and flagellates."[28]

To the second of these objections it is already claimed by two workers in the Rockefeller Institute that they have cultivated cancer cells in artificial media. To the first, one can only say that if in the future no process analogous to fertilisation is discovered in the life-history of the cancer cells, it is evident that the import of the process of fertilisation will have to be reconsidered. If the cancer cell does not conform in all respects to the laws which are believed to govern the protozoa, it will still remain "a complete animal organism in itself." A new phylum will have to be founded for it, and laws drawn up appropriate to its life.

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An Introductory Address

ON

THE MEDICAL ASPECTS OF SOME SOCIAL QUESTIONS.

Delivered before the Forfarshire Medical Association on Oct. 13th, 1911,

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GENTLEMEN,—It is possible—nay, even probable—that on such an occasion as this our thoughts are apt to be reminiscent of the past, rather than expectant of the future. It is my intention to-day to seize the opportunity which your kindness affords me in order to ask you to look forwards, rather than backwards.

INTRODUCTORY REMARKS.

The present is so full of social projects—some of them of a truly adventurous kind—that it is well for—nay, incumbent upon—us to consider whither we are going. Closely connected with such thoughts is the question whether the world, as a whole, is improving. In spite of the material progress and luxurious habits of our age, we often feel it necessary to ask ourselves if the accumulated wealth which has been heaped up in this country during the past century is to be taken as evidence of greater health of our nation. We must endeavour to ascertain whether our success in amassing riches has brought any real improvement in the condition of the people. It seems in my humble judgment that such subjects are at least open to debate, and it has been borne in upon me (who cannot in any way be regarded as *laudator temporis acti*) that, in some respects, we are really in no better condition than we were before.

Our great aim, as belonging to the medical profession, is to do what we can for the good of all. We are all members of one body politic, and, whether we believe in the principles of Individualism or of Socialism, we desire the welfare of the people at large—*salus populi suprema lex*.

In the remarks about to be made, let me make it quite clear that they are addressed by a working man to other working men. We are in the habit of speaking of those who labour with might and main as "working like blacks." Assuredly the medical man who desires to fit himself for the performance of his duties, and who is reasonably successful in his aims, may justly be regarded as working like ten blacks.

It will be difficult in this address altogether to steer clear of politics; but even if a political bias should show itself, there will certainly be a total absence of any attempt to impute unworthy motives, or to impugn the personal sincerity of any of the politicians from whom we cannot fail, as men of science, to differ.

It must also be premised that in entering upon any consideration of the subject which is to occupy us we must, above everything, avoid all that savours of flippancy. Professing, as we do, the healing art, which leads us to spend our lives, as it were, "in sight of the very Gate of Eternity"—as my dear old friend, Sir William Gairdner, expressed it in one of his most beautiful addresses—we shall always approach such matters in the reverent spirit of men engaged in a holy calling. Righteous indignation or noble rage we may well feel at the sight of wrongs, or the sound of lies, and when stirred in this way we would be false to our better selves if we held our peace; this is quite other than the satirical cynicism of the light-minded.

The advance of democracy is steadily increasing the influence of the working man, and signs are not wanting that he will use his power. We may well believe that he will employ it, on the whole, wisely. It is evident that he will not much longer support the longshore loafer, the sturdy beggar, and the professionally unemployed; it is likewise clear that he is tired of witnessing the sentimental pauperising of the picturesque (and often criminal) alien, as well as the reprehensible toleration of all types of our own home-grown Weary Willies. How to prevent the increase of the unemployable is a matter which many intelligent artisans have discussed with me.

We need not, in my opinion, fear the swelling waves of democratic thinkers in our country. Judging by the past, the modes of social and political thought in the future, with some temporary aberrations from time to time, will return to sane channels. The strongest discipline that this country ever had was that under the Commonwealth. Many of us feel that it were well for our country to enjoy—if such a phrase may be employed—something of the kind again. It is our bounden duty to use such influence as we have with our other working brethren to help them to use their power in the right direction. There is a general rule, to which few exceptions can be found from the study of history, that no nation can retrace its steps. It therefore behoves us to use our best endeavours to see that the direction in which we are tending is along the lines of safety.

Before taking up the topics upon which you will allow me more particularly to dwell, it seems necessary to make a few preliminary remarks regarding a subject which has been and will be much in our minds.

NATIONAL INSURANCE BILL.

Criticism of the National Insurance Bill is rendered somewhat difficult by a sincere sympathy with most of its declared aims. Many of us on the introduction of the Bill welcomed it as an attempt to lead a large proportion of our population to make provision against the accidents of life; this has notoriously been left undone in the past. We would have wished to have gone further in some directions, particularly in making provision for the widows and children of deceased workmen. We rejoiced, nevertheless, to think that a serious attempt was at last being made to introduce a contributory scheme of national insurance, in which those in whose interest it was introduced should be taught the benefit of self-help.

But most of us have been led to view the Bill with suspicion, on account of its preposterous sections in respect of medical benefits. The amazing proposal that attendance should be rendered by the medical profession on terms, under the circumstances, almost gratuitous, to voluntary insurers of unlimited wealth, was in itself enough to make any reasonable being suspicious of the sanity of its author. Under the unanimous pressure of common-sense, this attempt to foist the well-to-do on us as recipients of charity has already faded away like the snow on a dyke in the morning sun.

The *income limit* of those now suggested as entitled to medical benefits is still a vexed question. The original proposal, after the elimination of the voluntary clauses, dealt severely, as usual, with the unfortunate payer of income-tax. The clauses proposing to enact that all those who do not pay income-tax should enjoy medical benefits was, we have been told, due to the fact that the wit of man was unequal to the effort of devising any other basis. What a humiliating confession of political incapacity and legislative ineptitude! In the storm and stress of medical criticism, the suggested solution is to leave the determination of the question to the local authorities. Does such a suggestion bear any mark of real statesmanship? It is only a compromise, and a feeble compromise; it would undoubtedly have been far wiser from the first to have suggested a scheme of graduated payments for medical assistance.

Little need be said about *freedom in the choice* of a doctor. Such freedom was demanded by everyone. We have not yet reached a belief in equality of intellect. The Hibernian Socialist of the ancient chestnut put the matter in a nutshell when, to his leading statement: "One man is as good as another," he added, in a burst of confidence, "and sometimes, indeed, even better."

Few words are required in regard to the absolute necessity of *adequate medical control*. Sufficient medical representation upon all committees is, and must be, the basis for all efficient medical service. This, also, has been conceded as the result of powerful medical representations.[1]

[1] The hopes expressed when this address was delivered with regard to the amendments to the National Insurance Bill have been almost entirely disappointed. Of all the points in respect of which the medical profession insisted on modification only one has been yielded—that allowing free choice of the doctor; it was so obvious that the nation would tolerate nothing else that we have no reason for any particular gratitude on this head. As the Bill in its present condition is an outrageous violation of the justice we have every reason to expect at the hands of the State, there is nothing left for us but to decline, in the most absolute way, to take part in carrying out any of its provisions. There can be no doubt that in Scotland we shall be able to stand fast in passive resistance to intolerable tyranny.—G. A. G.

Most of the points which have been referred to may be, let us hope, regarded as mainly of historic interest. It will not do, however, to slacken our vigilance, as in Committee, or on its third reading, some of the discredited clauses may, perchance, find their way back again, and until the Bill has been thoroughly mended or completely ended we must be on our guard.

To us there is one gratifying feature. The discussions which have been held have not only taught us our power but shown our solidarity. Many of us here have engaged in agitation, forced upon us by the dangers to which numerous colleagues have been exposed. It has indeed been a matter of heartfelt gladness that we have stood, and shall stand, shoulder to shoulder in the crisis of our profession.

General Criticism of the Bill.

In thinking over schemes for the good of the people one of the humorous yet touching scenes in the twenty-second chapter of the third book of Sterne's masterpiece will probably present itself to many of you:—

> Pray what's the matter? Who is there? cried my father, waking, the moment the door began to creak.—I wish the smith would give a peep at that confounded hinge.—'Tis nothing an' please your honour, said Trim, but two mortars I am bringing in.—They shan't make a clatter with them here, cried my father hastily.—If Dr. Slop has any drugs to pound, let him do it in the kitchen.—May it please your honour, cried Trim, they are two mortar-pieces for a siege next summer, which I have been making out of a pair of jack-boots, which Obadiah told me your honour had left off wearing.—By Heaven! cried my father, springing out of his chair, as he swore—I have not one appointment belonging to me, which I set so much store by as I do by these jack-boots—they were our great grandfather's, brother Toby—they were hereditary. Then I fear, quoth my uncle Toby, Trim has cut off the entail.—I have only cut off the tops, an' please your honour, cried Trim.—I hate perpetuities as much as any man alive, cried my father—but these jack-boots, continued he (smiling, though very angry at the same time) have been in the family, brother, ever since the civil wars:—Sir Roger Shandy wore them at the battle of Marston-Moor.—I declare I would not have taken ten pounds for them.—I'll pay you the money, brother Shandy, quoth my uncle Toby, looking at the two mortars with infinite pleasure, and putting his hand into his breeches pocket as he viewed them—I'll pay you the ten pounds this moment with all my heart and soul.—
>
> Brother Toby, replied my father, altering his tone, you care not what money you dissipate and throw away, provided, continued he, 'tis but upon a siege.—Have I not one hundred and twenty pounds a year, besides my half pay? cried my uncle Toby.—What is that—replied my father hastily—to ten pounds for a pair of jack-boots?—twelve guineas for your pontoons?—half as much for your Dutch draw-bridge?—to say nothing of the train of little brass artillery you bespoke last week, with twenty other preparations for the siege of Messina: believe me, dear brother Toby, continued my father, taking him kindly by the hand—these military operations of yours are above your strength;—you mean well, brother—but they carry you into greater expenses than you were first aware of;—and take my word, dear Toby, they will in the end quite ruin your fortune, and make a beggar of you.—What signifies it if they do, brother, replied my uncle Toby, so long as we know 'tis for the good of the nation?—
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> My father could not help smiling for his soul—his anger at the worst was never more than a spark:—and the zeal and simplicity of Trim—and the generous (though hobby-horsical) gallantry of my uncle Toby, brought him into perfect good humour with them in an instant.
>
> Generous Souls!—God prosper you both, and your mortar-pieces too! quoth my father to himself.

Here we have the whole gist of the matter—so long as we know it is for the good of the nation. It must be owned that it would be a hard task to find any resemblance between the demagogue orator and one of the most delightful characters of English classical fiction. There is, however, one aspect which the rampant politician and the genial soldier have in common. As the military operations of the latter were above his strength, so are the financial adventures of the former beyond his ability.

In a recent communication the author of the Bill has made a statement which throws a painful light upon the reason for its introduction. He tells us that its object is not to teach the people how to help themselves in any noble efforts, but simply to help themselves out of other people's pockets. In case there should be any suspicion of a parody let me give his exact words:—

> The Insurance Bill provides that for every 4*d.* paid by the workman he shall receive benefits worth 9*d.* To aid the workers' contribution a sum of £17,000,000 per year is to be subscribed by the employers and tax-payers.

It is difficult to find phraseology adequate to meet such an admission as this.

But this doctrine of plunder is in itself based upon falsehood. The statement that for every 4*d.* paid by the workman he is to receive benefits of the value of 9*d.* is absolutely and grotesquely untrue. Every penny will in the long run be paid by himself. The specious inducement offered to the electors to vote for candidates of the same political complexion as the author of the Bill is a grotesque travesty of the truth. This, indeed, is now generally understood, and it is beginning to be recognised that the proposed legislation, if it requires such commendation, although containing some principles to which we all assent, must have a basis of hopeless immorality. When we reflect upon the crafty ways and the shifty tricks of this legal luminary we may well envy the inhabitants of Utopia. You remember, with a wide tolerance of most men, they drew the line at lawyers. In the Second Book of Sir Thomas More's famous work you will find it stated:—

> Furthermore they utterlie exclude and banishe all attorneis, proctours, and sergeauntes at the lawe: whiche craftelye handell matters, and subtelly dispute of the lawes. For they thinke it moste meete, that every man should pleade his own matter, and tel the same tale before the judge that he wold tell to his man of law. So shall there be less circumstance of words, and the trueth shal soner come to light, whiles the judge with a discrete judgement doethe waye the woordes of him whom no lawyer hath instructe with deceit, and whiles he helpeth and beareth out simple wittes against the false and malicious circumventions of craftie children.

Two Great Dangers to the Profession.

Many of us in Scotland have spent time, and energy, and money in struggling against some of the clauses which would be disastrous to the medical profession. In regard to a good many of these provisions, concessions have been promised by the author of the Bill, but it is absolutely necessary that we should watch over its progress. If placed on the Statute Book as an Act it can only be brought into operation with our sympathy and assistance.

To the members of our profession there are two great dangers. It is possible, on the one hand, that the emoluments of a large number of our brethren may be so reduced as to render conditions of life too hard for the successful prosecution of medical practice; and, on the other hand, that a new and subordinate class of practitioners may arise, who have neither the instincts nor the education of the present generation. We earnestly hope that neither of these contingencies may arise. We glory in our medical brotherhood, and have good reason to do so. The discussions on the Bill have taught our profession its power, and have shown its solidarity. If we remain as at present, shoulder to shoulder, the Government must come to terms with us and alter the obnoxious clauses of the Bill.

IMMIGRATION.

There are important matters with which Parliament has been engaged within recent times, with which it is even now occupied, or with which, before long, it must concern itself. Along certain definite lines, in respect of these subjects, we should, in my judgment, use our influence in order to assist social progress. To some of these let me now ask your attention.

As regards the health of the people, let us begin at the beginning, and the obvious commencement is with the addition of inhabitants to this country. For generations we have been the refuge and asylum, not merely of the political exiles, but of the criminal outcasts of other countries. It is high time that this should be put an end to. An Act was passed some years ago regulating the entrance of undesirables into this country; but it is very largely a dead letter, and we still remain the dumping-ground of the rascality of the world. We should learn a lesson from our children in Canada and our brethren in the United States. They do not accept with an equanimity, possibly benevolent, but certainly facile, the entrance of every criminal, lunatic, and degenerative derelict from other countries. They are perfectly right, and the wisdom of their stern regulations is more and more manifest every year.

We have to admit that we are a people of mixed blood; but we need not try to be more mongrel than we really are. We used to be at least a white race, but now there are far too many black and brown and café-au-lait complexions in our streets. It would be a decidedly hopeful indication did we see some more pride of race manifest amongst us to-day. It cannot be said, however, that there is much indication of a growth of common-sense in these directions amongst a nation like ours which seems positively to welcome the introduction of goods manufactured in foreign prisons, to the detriment of our own workmen at home.

EUGENICS.

In this century it is probably inconceivable that any nation can ever attain to such a scheme of marriage as is depicted in the Fifth Book of the Republic; but we can use

mouth and pen in order to further the propagation of our race only along lines dictated by common sense. We must admit that, in such questions, there are enormous difficulties. Heredity and environment are both at work in the formation of character, physical as well as psychical. It is part of the study now termed Eugenics to inquire into and sift out the facts connected with these subjects; and we must remember that in this study we have not merely scientific problems, but we have social duties.

It is probable that each one of us now present is a believer in the doctrines of Weismann. Although the principles he has enunciated are most helpful to us in our conceptions of many phases of evolution, it must be allowed that they in the meantime somewhat increase our difficulties in the way of practical application. The general result, however, is to increase our hopefulness that, by improving the environment, we possess the means of elevating the race. The persistence of the germ plasm, and its independence of all accidental circumstances, furnish cheerful anticipations, could we but have the power of removing the organism from evil surroundings.

One of the most admirable illustrations of this subject is to be found in a very interesting address on the Eugenics Question and its Limitations by Macalister. Macalister prosecuted an inquiry concerning all the marriages in Liverpool between couples both of whom were deaf-mutes and discovered 62 such unions. From these marriages there resulted 219 children, to say nothing of a large number of grandchildren, and there was not a deaf-and-dumb child in the whole of these descendants. He tells us also that in the further investigation into the histories of the children in the Liverpool School for the Deaf and Dumb, where for 15 years records had been kept regarding the parents of those afflicted by these affections, the surprising result was discovered that there had been no deaf-and-dumb child whose parents had been deaf and dumb in the whole of that period. Such facts as these show us how persistence of type in the germ plasm tends to a hopeful view, provided the individual is placed in a satisfactory environment.

We now know how much may be made of Mendelism in breeding certain physical characteristics; but we know nothing of what will lead to the production of higher types. This has been exceedingly well put in an admirable address, "On the Aim and Scope of Eugenics," by Sir James Barr:—

> The difficulty is to know what characters lead to the elevation of the race; but if we do not know all the characters we want, we do know many of those which we do not want, so we should begin our campaign by eliminating the undesirables, the idiots, the imbeciles, the insane, the useless wastrels, the professional pauper, the habitual drunkards, the habitual criminals. There are, of course, certain criminals, such as the burglar, the highwayman, and the forger, who are very clever, and if we are breeding for intelligence it might not be well to exclude them. Many of these men are misdirected geniuses, much more clever and often more honest than your company promoter. Some of these men might make or produce an excellent Chancellor of the Exchequer; scarcely one of them would stoop to a hen-roost, and nothing short of a jeweller's shop or a bank would tempt some of them.

How are we to set to work in order to make use of the forces of heredity and environment? Although the former is largely beyond our control, we may take advantage of our knowledge so far as it goes in order to see that only those who have inherited, and who are likely to transmit, healthy characters are to be the parents of the race of the future. With this end in view, let us segregate the undesirables of every kind in labour colonies, let us treat them with firm kindness, but let us see that they do not give hostages to fortune. It is often held that the practical difficulties are overwhelming, and that it is impossible to carry out such a scheme as this. Plans of this kind have, however, been adopted successfully both in America and on the Continent. There is at least one labour colony in America which costs the community less than half a dollar—about eighteenpence—a year for each inmate, and there is a similar institution in Switzerland, which is entirely self-supporting. Such facts as these point the way for useful legislation in our own country.

We must set our faces against the union of good and pure women with depraved and vicious brutes—this is, indeed, a libel on the lower animals—in order to reform them; or, with decadents and degenerates, in order to develop and elevate them. Some of you will probably remember a series of six plaster casts that used to adorn the retiring room of Professor Laycock in the University of Edinburgh. Two of the casts were taken from a man and a woman who had been inmates of one of the county asylums. The directors or managers of the institution, in their supreme wisdom—or in their benevolent altruism—thought that the two obvious degenerates would either work better, or that they would be more happy, if they became husband and wife. They were married; and the four other plaster casts represent the four offspring—each of which, in a descending series, became more simian, or degenerate.

The celebrated case of "Ada," whose surname has been judiciously hidden from the gaze of the curious, is a terrible instance of the production of the criminal type. Ada was the progenitor of something like 1200 individuals, of whom at least 1000 were criminals, or lunatics, or paupers, or prostitutes, or drunkards. It has been attempted quite recently to prove that the unfortunate Ada was not as black as she has been painted; but the facts are undoubted—that nearly 85 per cent. of her numerous descendants were hopeless degenerates.

Much may be said for the old monastic and conventual system. The frail Ada might have done well either in the choir or in the kitchen of a sisterhood of perpetual adoration; while the elusive Crippen would have been far better occupied as a gardener or even a cellarman in some working order than in exercising his misdirected energies without guidance and restraint. It is to be remembered that even the best of us may be faulty in practice—albeit sterling in principle. You remember how Samuel Johnson, in speaking of his great friend, Dr. John Campbell, makes the remark:—

> Campbell is a good man, a pious man. I am afraid he has not been in the inside of a church for many years; but he never passes a church without pulling off his hat. This shows that he has good principles.

In another part of the same charming work the ponderous Doctor once more speaks of his good friend as—

> A man of good religious principles, though I am afraid he has been deficient in practice. Campbell is radically right, and we may hope that in good time there will be good practice.

And yet again, this time after the death of his friend:—

> I loved Campbell; he was a solid, orthodox man; he had a reverence for religion. Though defective in practice, he was religious in principle

If the practical outcome in the case of even the best of men falls so far short of a correct standard, what can we say of the worst of them?

Some of our friends are not in favour of the idea that the weak should be taken care of and that the wicked should be kept from working mischief. They believe that Nature should be allowed a free hand—that we ought to trust to the survival of the fittest. They are of opinion that debauchery and disease should be allowed to carry out their work of extermination without hindrance. They tell us that we are hopelessly wrong in rescuing the unfortunate inebriate from the gutter, instead of allowing him to snore away his life in a hard frost or in a sleety storm. Our good friends of this way of thinking (and many of them, it may be said, are most genial and kindly souls) altogether forget that the survival of the fittest is not necessarily the survival of the best.

If we are to enter upon any socialistic legislation we must do it thoroughly—half measures are of no use. The better classes of our fellow working men are now much concerned about social problems of this kind, and we who exert wide influence upon large numbers of them should consider well how we are to use it for further social reform. The supreme importance of a healthy stock; the marriage in the prime of life of the highest types of our fellow men and women; the due performance of every paternal and maternal duty—such are, it seems to me, the most pressing social responsibilities which we have to impress at the present moment upon our lay brethren.

PHYSICAL DEVELOPMENT.

In respect of the education of the people, we have, as medical men, for a long time wisely taught the absolute necessity of caring for physical development and bodily health. The early correction of inherited or acquired defects is an aim worthy of our best endeavours. The system of school inspection by medical officers now affords a basis for concerted action. The healthy training of the body is the only foundation on which the healthy development of the mind may be built. All methods of training the muscular system are of practical utility.

One of the best courses open to us is to emphasise the usefulness of military training, which at once tends to the health of the body and to fitness for defence of the

country. Many of us now present here must have regretted that, when the old age pensions were instituted, the legislature did not make it necessary that those who are, in 20 years or so, to receive those pensions, should have performed the elementary duty of being thoroughly drilled. When we look at the Territorial Force of to-day we find it is composed of the same types of men with public spirit as those who constituted the Force which it has superseded. Would that it were extended! One of the most hopeful features of the present day is the institution of the youthful scouts of both sexes. They, and the school cadets, somewhat raise our anticipations for the future.

Again, general emulation in games is vastly better than standing around gazing at a professional combat by hired gladiators, where the spectators render the mental atmosphere as lurid as they make the ground filthy. Each of the spectators would certainly be much better employed in some healthy game, or, in a walk in the country, than in betting and swearing and spitting while watching a contest of professional performers.

Instillation of Sound Ideas in Children.

We should like to see the existence of high ideals, even in infant schools. The example of our brethren in the United States is entirely admirable. From their earliest years the children are taught to have pride in their country and love for their flag. Many of us who have spent long periods away from our native land know well what a warm rush of feeling arises when we catch sight of "the old rag." All of us delight in seeing it waving on the breeze. One of the weakest acts of our present Prime Minister was to discourage the hoisting of our flag upon our public buildings on Victoria Day.

Our children in Canada, and probably in every other Commonwealth, Dominion, or Union of the Empire, can teach us lessons in this respect. Just the other day, on the declaration of the results of the elections in Vancouver, an excited alien seized one of the British ensigns adorning a building, tore it down, and danced upon it in the mud. He was immediately the centre of an interested crowd. Forced upon his knees, he was compelled to offer the most abject apology to the flag, and thereafter, before being allowed to seek retreat, he was obliged to sing "God Save the King" three times from beginning to end, prompted by word and deed; he then received a somewhat forcible dismissal. It is doubtful whether such an incident in this country would arouse more than a shrug of the shoulders.

In the cities a love of rural life may well be inculcated. Some of you may have read the interesting work of Canon Horsley upon his labours amongst the poor in London. He has done a great deal of loving work for the children by sending them out to enjoy holidays in the country. He tells a pathetic story of one youngster whom he met on his return from a day in a beautiful country place. On asking the boy how he enjoyed it, he was astonished to get the reply that it was "beastly"; and when pressed for a reason for this opinion the boy said there were "no rows, no fights, no funerals—no nothing."

It often seems to me that the schools of to-day do not foster the acquirement of gentle manners as well as was the case with our old parish schools. On speaking, not merely to schoolmasters, but to inspectors of schools, upon this matter, they have told me that it is the fault of the present system; that the schoolmaster is not expected—nay, he is even forbidden in many instances—to take any interest in, or to influence the conduct of, the children out of school hours. If this be the case, what can we expect of many of the children living in the dens of our great towns? Once, not very long ago, a benevolent old lady met a small boy, who was a member of a children's fresh-air holiday expedition. She stopped and said kindly to the little mite: "I suppose you are one of the fresh-air children?" His reply was startling to the poor old lady. What he said was: "Not so very damned fresh neither"!

Is it too much to expect that before the children leave school they should not only be brought within the influence of refining agencies, but that they should also be subjected to patriotic impressions? It seems to me that they never can be too young for the instillation of sound views. We must use all our influence in order to impress on each and all within our sphere of influence that there are no rights unaccompanied by duties: no privileges unattended by responsibilities.

Practical Bearings.

What are the practical bearings of these points on the treatment of the medical aspects of social questions? The reply is easy. We have to answer to our fellow-citizens and to the Commonwealth for our conscientious discharge of every trust reposed in us. One of our duties is to speak what we believe to be the truth, frankly and fearlessly.

Much of our work is in direct opposition to the obvious tendencies of nature. We labour day and night to compel the unfit to survive. Undoubtedly the ordinary dictates of humanity demand this course. The common-sense of humanity, nevertheless, does not suggest that the unfit should be the parents of the future race.

Just four weeks ago Lord Rosebery took occasion to ask, in his brilliant rectorial address, whether we are not in danger of becoming a "spoon-fed nation." He is not alone in his fears. The belief is entertained, not only by the lovers of our land, but by those who cannot be looked upon as particularly friendly. In his later years, that man of blood and iron, the late Prince Bismarck, remarked contemptuously, "England! Pooh! England has run to flesh." Is there no truth in his powerful gibe? We are striving to make the bed of everyone too soft. We attempt to construe crime as a symptom of disease. We labour to rescue the unfit from extinction. We encourage our degenerates to flourish. We stimulate the breeding of hooligans. We even unite our lunatics in the bands of holy wedlock.

If the sturdy old individualism by which our nation was fashioned is to be superseded by a brand-new Socialism, let us see to it that the new order is, as far as may be possible, based upon scientific principles. By all means let us persevere along the fruitful lines of public health reform followed during the last two centuries—improving the dwellings and bettering the conditions of the working men. Above all, let us care for the children not merely by providing them with education, but also with food when necessary.

To one point you will perhaps let me, in this place, briefly refer. It is assuredly a foolish arrangement to allow the tainted offspring of the criminal classes to sit side by side with the innocent children of the respectable artisan. This is another cogent reason for segregating the criminal and the degenerate, and for State rearing of their offspring when they unhappily have any.

By using all our influence in such directions we can greatly aid social reform, and certainly it will be better for this country if we can carry out such improvements. Progress can never be attained by allowing the alien to crowd out our better-class workmen; by favouring the free entry of foreign goods—especially those manufactured by the criminals of other countries, whom we therefore assist to maintain—or by enacting crushing taxes upon the land, so that it is impossible to sustain a healthy population upon it. No, the British workman is already showing signs that he is tired of such futile expedients; and if we can help him with the result of our wide experience we shall be doing our best for the future of our nation. We have, no doubt, many different ways of regarding such problems, and most varied methods of solving the questions before us; but our aims are one—the elevation of the race.

Royal Society of Arts.—The current session of the Royal Society of Arts was opened on Nov. 15th with an address by Lord Sanderson, a vice-president of the Society and chairman of the council. Taking for his principal subject the modern development of international intercourse, he dated its origin from the fifteenth century when the maintenance of permanent diplomatic agents at foreign courts became general in Europe, simultaneously with the establishment of permanent armies. Many illustrations of the recent increase of international intercourse were drawn from the work of the post-office, the telegraph service, oversea passenger traffic, statistics of imports and exports, and international exhibitions and congresses. After concluding his address Lord Sanderson presented a number of medals to various recipients. Three of these were Fothergill medals for mine rescue apparatus—a gold one each to Mr. H. A. Fleuss and Mr. W. E. Garforth, and a silver one for apparatus submitted by the Mining Engineering Company. Dr. Leonard E. Hill received a Royal Society of Arts medal for a paper read by him on Caisson Sickness and Compressed Air. Mr. James Cantlie received a similar medal for a paper on Plague and its Spread.

THE TREATMENT OF CLEFT PALATE.

BY R. W. MURRAY, F.R.C.S. ENG.,
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AN endeavour to trace any surgical procedure to its origin is interesting, and often very instructive. Anyone engaged in such a pursuit soon discovers that the true course of surgery is by no means smooth and straight; in fact, to retrace any surgical footpath is not always an easy matter, the way is so tortuous, the milestones so many, and the light so often fails. However, many surgical procedures can be traced to their origin, and probably none with greater certainty than that relating to the operative treatment of cleft palate.

There can be no doubt that M. J. P. Roux, Professor in the Faculty of Medicine of Paris, was the first surgeon to close a cleft of the palate. The way in which the operation was suggested to him, and the brilliancy of the result, is one of the romances in surgery. One morning early in September, 1819, Mr. Stevenson, a young Canadian, studying medicine in Paris, who had a cleft of his soft palate, called upon the professor, who was then one of the luminaries in Paris, and asked him if he could stitch his palate and so improve his speech. Roux said he would try; he pared the edges of the cleft and brought them together with sutures. Union followed; the palate became like a normal one, and when the youth appeared amongst his former friends the change in his voice was such that he could scarcely be recognised as the same person.

It seems strange that so remarkable an achievement should not have made more stir in the surgical world. No doubt other surgeons tried, but the operation was tedious, painful, and exhausting, and as failure was more frequent than success few persons had the courage to submit to such an ordeal. Liston, writing in 1831, said only fissures of the soft palate could be operated upon. "In some cases the extent of the separation is great; in others the edges are readily approximated by making the patient throw the muscles into action. The latter class admit of operation with a view to permanent union of the edges of the fissure." He considered the operation very liable to failure.

During the next ten years no real interest appears to have been taken in the matter, but in 1840 the whole surgical world was stirred by the brilliant results obtained in subcutaneous surgery by Dieffenbach and Stromeyer, the former by subcutaneous myotomy for strabismus and the latter by subcutaneous tenotomy for club-foot. This was the birth of plastic surgery. Tenotomy and myotomy at once attained popularity and were generally recognised as sound surgical procedures.

In this movement attention was again directed to the treatment of cleft palate, and to Dieffenbach and Sédillot we are indebted for a distinct advance in this branch of surgery based upon the principle of myotomy and tenotomy, for they were the first surgeons to make lateral incisions parallel to the cleft in order to lessen the tension on the stitches. Though surgical interference was at this time strictly limited to fissures involving the soft palate only, still lateral incisions rendered success more frequent in the slighter cases, and enabled some of the wider gaps to be closed successfully. It was, however, Sir William Fergusson who first explained the real object of these lateral incisions, which had been made without any definite anatomical reason. In 1844 Fergusson read a paper before the Royal Medical and Chirurgical Society in which he explained how the muscles of the palate act when it is cleft. From an actual dissection he was able to demonstrate that the levator palati, the palato-pharyngeus, and palato-glossus widen the cleft when they contract, and consequently the action of these muscles was responsible for many failures after the operation of Roux, who never made lateral incisions. Fergusson advised tenotomy of these muscles, which he did by passing a specially constructed knife through the cleft and divided the muscles on the posterior aspect of the palate. He thus placed the incisions for the relief of tension on a sound scientific basis. Up to that time no English surgeon had succeeded in closing, or even had attempted to close, a cleft of the hard palate.

The next conspicuous advance originated in the mind of an American surgeon. In 1843 Dr. T. Mason Warren of Boston published an account of several cases in which he had succeeded in closing congenital clefts which involved both hard and soft palates. Sir William Fergusson, referring to this in the first edition of his "Practical Surgery," published in 1852, says, "Until a very recent date no attempt has been made by surgeons to close a gap in the hard palate, excepting by means of an obturator, which has always been supplied by a dentist. Dr. T. Mason Warren of Boston has, however, closed the fissure here, as well as in the soft palate, by a proceeding strictly surgical; he dissects the soft tissue from the hard vault of the mouth, between the margins of the cleft and the alveoli, and then closes them in the mesial line by a proceeding analogous to the operation in the soft parts, and reports (in the *New England Quarterly Journal of Medicine and Surgery* for April, 1843) most favourably of the result. I have resorted to the operation in several instances, but without success; yet the plan seems so clever and reasonable that I cannot but recommend it for further trial."

When, in 1847, chloroform was introduced to surgical practice one would have thought that its administration would have greatly facilitated operations upon the palate, and would soon have rendered the operation feasible in childhood; but it was not so. The reasons probably were the want of an efficient mouth-gag, without which the surgeon could not perform the operation with the patient under an anæsthetic, and the high mortality attending the administration of chloroform in operations about the mouth and throat.

Writing so late as 1864 Sir William Fergusson says: "I have never operated under chloroform, and whilst I do not deny the possibility of doing so, I am of opinion that as a rule it is absolutely necessary to have the patient conscious so that he may facilitate the steps of the operation in various ways."

It should be noticed that Dr. Mason Warren, in order to close a cleft of the hard palate, separated the soft tissues from the hard vault, beginning at the margin of the cleft and working gradually outwards towards the alveolar margin. The difficulty of the operation and the uncertainty of the results soon induced surgeons to modify the procedure. Mr. Pollock of St. George's Hospital, who paid great attention to this branch of surgery, recommended that after separating the soft parts from the bone lateral incisions should be made as far from the margins of the cleft as possible in order to avoid the chance of sloughing. "The edges being pared, sutures should be passed into the slips of soft tissue which now lie between the opening and the lateral incisions. An improvement to the support given by these sutures is obtained by passing a broad suture through the lateral incisions and then including with its embrace both flaps. This not only serves to support the flaps, but it prevents the healing of the lateral incisions until union has had time to take place between the margins of the opening."[1]

A further and very important modification was made by Langenbeck. Instead of beginning the separation of the soft parts from the bone at the margin of the fissure, he made lateral incisions parallel with the alveoli through the soft parts down to the bone and raised the muco-periosteum towards the margin of the fissure, his object in raising the periosteum being that new bone might be developed which would fill the gap. It is Langenbeck's modification of Warren's operation which is commonly practised to-day.

Sir William Fergusson suggested another modification of the operation, in which an incision was made on each side of the fissure and the bone divided longitudinally with a chisel, the two edges being forced into contact. Although in his own hands some satisfactory results were obtained, further experience has led to the abandonment of the operation, which is unnecessarily severe and liable to be followed by necrosis of the divided bone.

Jan. 14th, 1868, is a very important date in the history of the surgical treatment of cleft palate, for on the evening of that day Mr. (afterwards Sir) Thomas Smith, who was then assistant surgeon to St. Bartholomew's Hospital and surgeon to Great Ormond-street Hospital for Children, read a paper before the Royal Medical and Chirurgical Society on the Cure of Cleft Palate by Operation in Children. In the course of the paper he said: "The advantages of being able to cure cleft palate in childhood will

[1] Transactions of the Royal Medical and Chirurgical Society, 1856.

at once be conceded by those who are familiar with the deformity and the inconvenience it entails. A resolute and intelligent adult patient, after a successful operation, may acquire by his own efforts, or with the aid of an instructor, the power of distinct and normal articulation. But in some the difficulty of unlearning an almost life-long habit is wellnigh impossible. It is probable that were the deformity of cleft palate cured in childhood, before the power of speech is being acquired, there would be less difficulty in teaching a child to articulate distinctly. At least it is certain that the earlier the cure was effected the less difficulty would the patient have in learning to speak plainly."

Up to that time the general practice of surgeons had been to postpone the operation until about puberty. Mr. George Pollock, writing in Holmes's "System of Surgery" in 1864—only four years before Mr. Smith read his paper—gives a clear and forcible expression of opinion as to the age at which a cleft of the palate should be operated upon. He says: "The age of the patient is a matter of some consideration to the surgeon who proposes to operate for the permanent closure of a cleft palate. There can be no doubt, as a general rule, that the patient should be old enough to desire the operation, should have sufficient determination to endure it, and should be able to estimate the advantages to be derived from it. For many reasons the age of 15 appears to be the earliest period for the operation; often a later period is desirable, though in some few instances it has been performed on younger children." Mr. Pollock goes on to observe that "the operation requires every assistance the patient can afford by quiet endurance of pain and keeping the mouth open even to a tedious and painful extent; that bleeding is often abundant and apt to produce fainting; that chloroform is of no assistance but inconvenient in its administration, and can never be sufficiently given to produce insensibility for the entire period required to complete the operation. When it is known that towards puberty the operation is often resolutely submitted to, the profession may feel satisfied that the use of the artificial plate to the period of puberty, with the option of the operation then, is the treatment which should be adopted by the surgeon, is a principle which if followed will give the most satisfactory results, and is a rule in surgery which, in the opinion of the author, should have no exception." This may be taken as representing the attitude of most of the surgeons in London regarding the operative treatment of cleft palate at the time Mr. Thomas Smith related his experience.

In order to render the operation possible during childhood two things were essential, an efficient mouth gag and a general anæsthetic. Mr. Smith exhibited at this meeting a mouth gag he had devised which is still known by his name. "Chloroform," he said, "can and should be used, and thus the operation may be performed with far greater rapidity and precision than when the surgeon is dependent upon the self-control of even the most courageous patient." Eleven cases were described in which chloroform had been administered and the mouth gag employed. Eight of the 11 cases were children under 11 years of age, the youngest being 2 years old. In all these 11 patients the soft palate only was dealt with, no attempt being made in any case to separate muco-periosteum from the roof of the mouth, nor to unite the fissure of the hard palate. In two cases the cleft was confined to the soft palate; the result in both was entirely satisfactory. In the remaining nine cases there was a fissure of the hard palate to a greater or less degree; of these, six were successful and three unsuccessful. The reason for closing the soft palate first was that the cleft in the hard might diminish in size.

Mr. Smith's communication forms a most conspicuous landmark in the surgical treatment of cleft palate; the operation was at once raised to a higher level, and a vision of many and better things quite clearly seen.

Though at the present time all surgeons recommend that a cleft of the palate should be closed completely during early life, there is by no means a general consensus of opinion as to how early in life the operation should be performed. Is it better for the patient that the operation be undertaken during early infancy or during early childhood?

In endeavouring to answer the above question one must above all things remember that the main reason for the operation being undertaken is that the powers of speech may be rendered more perfect than they otherwise could be. I wish to emphasise this point, because in England at the present moment there are two distinct schools of thought, or rather of practice, so far as cleft palate surgery is concerned.

Mr. Arbuthnot Lane maintains that the cleft should be closed during early infancy, in fact, as soon after birth as possible; and that in the ordinary type of the deformity, where there is a complete cleft of the lip and palate, the palate should be operated upon first. Now it must be obvious to anyone who is familiar with the state of affairs that a complete cleft of the palate cannot be closed during infancy by the usual method of operating. Mr. Lane has, however, overcome this difficulty in a most ingenious manner. He raises from one side of the palate a large flap so fashioned that it hinges on the whole of one margin of the fissure, and turning it over he tucks it under a small flap raised from the margin of the cleft on the other side. The flap which is turned over includes both hard and soft palate; its raw surface looks towards the mouth, and must, of course, heal by granulating.

Quite apart from the fact that this is the only way (except Brophy's method, about which I will speak presently) in which a cleft of both hard and soft palates can be closed during early infancy, I have heard it stated as a strong argument in favour of Lane's turn-over flap that the gap can thus be closed more easily and much more certainly than if the operation be postponed until early childhood and Langenbeck's method adopted. Even if that point be granted, surely one aims at something more than the mere closure of the fissure. The chief reason for performing the operation is not that the gap in the palate may be bridged over, but that articulation may be rendered as perfect as possible. The operation is undertaken for the ultimate benefit of the patient, and not for the immediate satisfaction of the surgeon. The end result is the true test of success.

After 20 years' experience in cleft-palate work, and with some considerable knowledge of the after-history of my cases, I am convinced that for a person to speak clearly and distinctly a well-formed and freely moveable soft palate is absolutely necessary. Now in Lane's turn-over flap the raw surface left uncovered will heal by granulating and consequently must contract; excess of scar tissue in the hard palate does not matter in the least, but makes all the difference in the world if present in the soft palate, which instead of being well formed and freely moveable will be ill formed, short, and so tightly drawn that the patient cannot move it at all; due, of course, to being composed so largely of cicatricial tissue. Consequently articulation must be sadly defective.

If, on the other hand, the operation be postponed until the child is two or three years of age, by paring the edges of the cleft and bringing them together in the middle line, not only may a well-formed soft palate be fashioned, but it will also be freely moveable, for the muscles retain their normal actions, and there is only a thin central line of scar tissue.

I wish it to be clearly understood that I do not object to the operation during infancy provided a soft palate resembling the normal one in shape and function can be made. The earlier in life such a state of affairs can be brought about the better, but speaking from my own experience I can say that when the cleft in the palate is complete and associated with a hare-lip I have obtained the best results in appearance and in speech by operating upon the lip at the age of 3 months and closing the palate by Langenbeck's method when the child is 3 years old. After all said and done, the true result, so far as speech is concerned, is entirely a question of evidence, and some years ago I suggested that a demonstration of cases should be held so that surgeons who advocate the turn-over flap (Lane's method) might produce their cases and surgeons who prefer to operate during early childhood by the ordinary method (Langenbeck's) might produce theirs. So should we learn wisdom, not from the writings of the surgeons, but from the lips of the children.

A demonstration such as I have mentioned took place at a meeting of the Surgical Section of the Royal Society of Medicine on May 9th of this year.[2] Though a great number of cases operated upon by the ordinary method were shown, for some reason or other only a few cases illustrating the results of Lane's method were brought forward. However,

[2] THE LANCET, May 20th, 1911, p. 1351.

after hearing the children speak there could be no doubt as to the respective merits of the two methods. In several instances in which a complete cleft of the hard and soft palates had been closed by the ordinary plan (Langenbeck's) during childhood the speech was natural, and the words "British constitution" repeated clearly and distinctly. On the other hand, in any case in which the cleft had been closed by Lane's method, articulation was so very imperfect that it was difficult to understand what was said. In all cases in which articulation was distinct the soft palate was seen to be normal in form and in movement; in all cases in which Lane's method had been used the soft palate was short, stiff, and stationary, accounting for the sad defect in articulation, for which unfortunately no remedy can be supplied. The evidence thus obtained from patients who had been operated upon was overwhelmingly in favour of closing the cleft in the ordinary way, whilst the extremely unsatisfactory articulation of patients operated upon by the turn-over flap method proved that it is wrong in principle, defective in practice, and to be utterly condemned.

Though I have nothing very novel to record in the way of operative detail, still from practical experience I have learnt one or two points which may perhaps be of some service to others.

Brophy's Operation.

After reading Dr. T. W. Brophy's account of his operation in the Transactions of the American Surgical Association, 1904, I determined to give it a trial. It was not long before I had a suitable case; the infant was 3 weeks old, and had a complete cleft of the lip and palate. Though I had studied carefully Dr. Brophy's instructions, my operative efforts were not crowned with success. After making the necessary incisions I tried very hard to force the superior maxillæ together, but instead of the bones sliding towards each other in the same plane, and so obliterating the fissure in the palate, in spite of all I could do they would hinge at the sides of the fissure in such a fashion that any further pressure would only have resulted in the alveolar margins of either side meeting in the middle line. The operation was, of course, abandoned. In another case I did succeed to some extent in approximating the bones in the manner Brophy describes, and after passing the silver wire sutures found I had lessened the cleft in the palate by about a quarter of an inch. The shock attending the operation was considerable, the infant never regained what it had lost, and died a few months later. I also had an opportunity of doing the operation in the post-mortem room upon an infant with a complete cleft of the palate and lip who died from gastro-intestinal trouble before being operated upon. Again, in spite of very free lateral incisions, the bones would not glide; they would hinge, and any lateral pressure I could exercise only resulted in the alveolar margins meeting in the middle line. I have never attempted the operation since. Though it is more than probable that in my case it was the operator and not the operation that was at fault, still so far as I know Mr. Edmund Owen is the only English surgeon who speaks well of the procedure.

Langenbeck's Operation.

This is the operation I perform, and it is so familiar from being described in all text-books on general surgery that I will only mention some points which I have found of practical value. Of course, no operation upon the palate must be undertaken at any age unless the general health of the patient is good and the condition of the mouth, throat, nose, and ears is beyond suspicion.

Age at which the operation should be performed.—This will depend to some extent upon the width and length of the fissure. When it is narrow and involves the soft palate only I have frequently operated with success during infancy, but as a rule prefer to wait until the second or third year. My reason for not operating during the first few months of life, even when the cleft is confined to the soft palate, is that, apart from the tissues being very friable, the bifid uvula is then so small that after paring the edges there is not much uvula left. It is very important to make a good-looking soft palate and uvula, resembling as nearly as possible the normal, and when I think I have sufficient material to do this I arrange for the operation to take place. As I have pointed out already, the future power of articulation chiefly depends upon the shape and movements of the soft palate. In the usual type of the deformity where there is a complete cleft of the lip and palate my general practice has been to operate upon the lip when the child is 3 months old, and upon the palate at the age of 3 years.

Time of year.—I prefer to operate during the summer months, and consider the cleft palate season opens on May 1st and closes on Oct. 1st.

Preparatory treatment.—As it is important to syringe the mouth and nostrils after the operation in order to keep them clean, this performance should be thoroughly rehearsed several days beforehand. Every child will not submit to it either before or after operation, but many will, and I have found it most useful—in fact, it is the only way in which the mouth and nasal cavities can be kept clean.

Anæsthesia.—Chloroform should be given, and the manner of its administration is a matter of great importance. Continuous anæsthesia, which can be produced by using Junker's apparatus, is very convenient to the operator but very dangerous to the patient. I speak not from my own experience, for I have never used this method, but from what I have seen in the practice of others. Chloroform should be given on lint in the ordinary way. The administration of the anæsthetic is necessarily intermittent, and so the period of the operation lengthened, but this is more than compensated for by the knowledge that your patient is with you all the time and not drifting to an unknown land.

Position of the patient.—I prefer to have the child lying on the back, with the head and shoulders raised. I stand at the right hand of the patient.

Incisions, &c.—The whole cleft is closed at one sitting. I begin by making the lateral incisions and raising a muco-periosteal flap (Figs. 1, 2, and 3). I then pare the edges of the fissure, taking pains to cut obliquely and so secure broad raw surfaces (Fig. 4). Up to this point I use gauze dabs to clear the blood and mucus from the mouth and throat, but after paring the edges I suck the blood and mucus away with a glass syringe which has a piece of rubber attached. The raw surfaces of the cleft, upon which so much depends, are thus less irritated than by sponging; besides which, the more sponging the more mucus secreted.

Sutures, &c.—In order to be quite sure that the edges of the wound are everted and raw surfaces brought together I use one or two button sutures (Fig. 5). For suture material I use silver wire and fine silkworm gut. In exceptional cases I have surrounded the flaps with tape impregnated with Horsley's wax (Fig. 6), and am satisfied it served a useful purpose. This use of tape was suggested some five years ago by Dr. Charles Mayo, of Rochester, but it is well to remember that the same idea occurred to Mr. Pollock, of St. George's Hospital, in 1863, and that he also discussed the advisability of plugging the lateral incisions with gauze. The operation completed, I have frequently, but not invariably, washed out the stomach, a tube being passed into the stomach through the nostril. It is certainly satisfactory to get away a quantity of blood and mucus which has been swallowed.

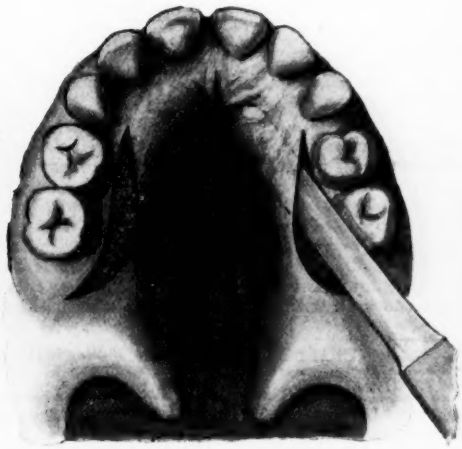
After-treatment.—This is almost entirely a question of nursing, the chief points being to keep the mouth clean and to maintain the child's general health. If on recovering from the anæsthetic the child should cry and not be pacified, a few minims of nepenthe may be given. In children over 4 years of age nasal feeding may with advantage be used during the week following the operation, but in younger children it is impracticable. In ordinary mouth feeding milk should not be given, for it clings to the stitches, is difficult to wash away, and undergoes fermentation changes. Valentine's meat juice, soups, or bovril are much to be preferred. Half an hour after each feeding the palate should be cleansed by syringing with warm water. If the child will not permit this, a drink of water must be given at the conclusion of each meal. If the bowels are not opened on the day following the operation a dose of castor oil must be given.

Surgeons are greatly handicapped by having to keep their patients after operation confined in the more or less impure atmosphere of a children's ward in a city hospital. It is a pity our children's hospitals are not out of town. I am sure all cases would do better, and I am convinced of this—that the results of cleft palate operations would be much more satisfactory than they are at present if after the operation the children could breathe fresh country air.

FIG. 1.

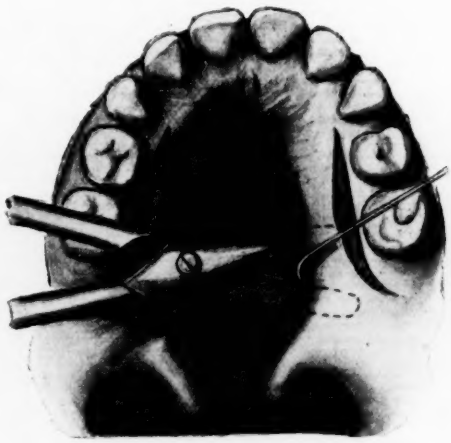
To show position and extent of the lateral incisions.

FIG. 2



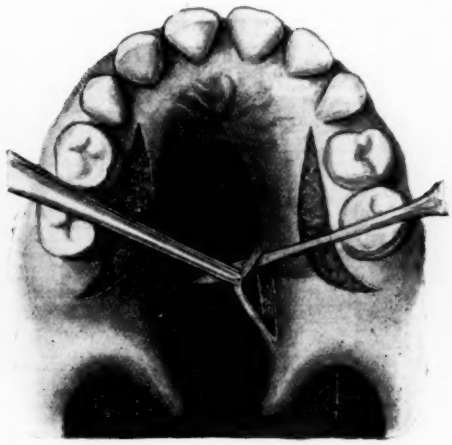
Muco-periosteal flap raised well beyond the limit of the cleft.

FIG. 3.



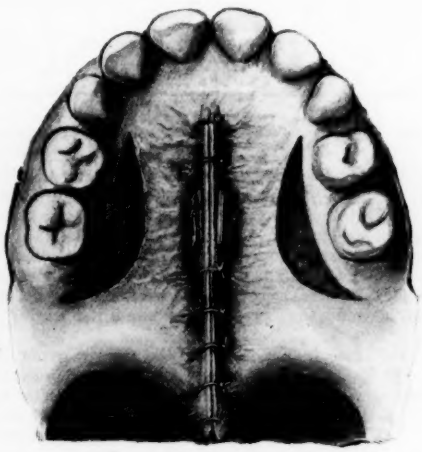
Division of posterior reflection of the soft palate.

FIG. 4



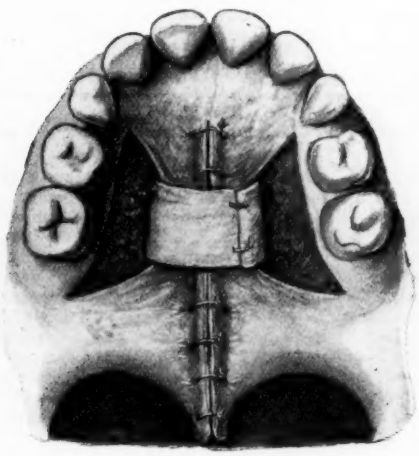
How to pare the edges of the cleft so as to obtain broad raw surfaces.

FIG. 5.



Button suture to evert edges and so place raw surfaces in appsoition. Two or more pairs may be used

FIG. 6.



Waxed tape encircling both flaps to relieve tension on the suture line (very rarely necessary).

THE EVOLUTION OF MODERN GYNÆCOLOGY.*

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WHEN I was asked to deliver this address I fell naturally to thinking of the contrast between the gynæcology of my student days and that of the present time. Exactly 25 years have passed since I began to attend a course of lectures on obstetrics and gynæcology, given at Owens College by my revered teacher and honoured friend, the late Dr. C. J. Cullingworth. As a lecturer he had few equals, and to the interest that he inspired I ascribe my subsequent decision to work in the same department of medicine as that wherein he laboured. But even his lucidity and enthusiasm could not entirely clear away the vague and nebulous atmosphere that surrounded much of the teaching of the diseases of women 25 years ago. It will be a pleasurable duty to show that he played no small part in helping to dissipate the mists and display the province of gynæcology in a fair and comprehensive perspective.

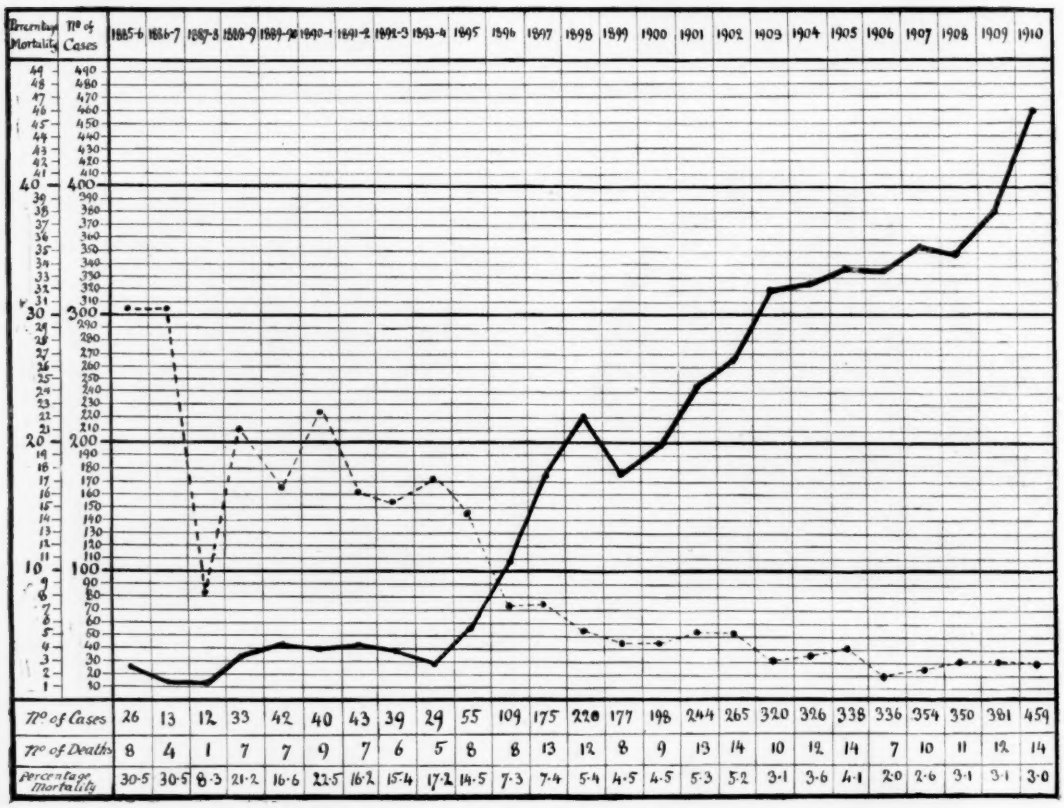
I take, then, as my subject, "The Evolution of Modern Gynæcology." It is no part of my idea to endeavour to trace the development of gynæcology in the dark ages or in the far-off past—those interested in such matters may refer to the learned work of Stewart McKay on "The History of Ancient Gynæcology." I will only call attention to a curious illustration, cited in this work, of the proverb that nothing is new under the sun. We are accustomed to think that ovariotomy was a product of the nineteenth century, but Stewart McKay[1] refers to the statement of Athenaeus, in his "Denosophists," that Xanthus relates that "Adramyttes, the King of the Lydians, was the first man who ever castrated women, and used female eunuchs instead of male eunuchs."

The evolution that I should like to speak of is that which has taken place in the last 25 years; but the origins of some of its phases must be sought in an earlier period in order to be understood, and therefore I shall have to refer to certain events that date back from 50 to 100 years.

By way of text I shall call your attention to the two accompanying charts. Chart I. shows the number of abdominal operations of all kinds performed at the Chelsea Hospital for Women yearly for the last 25 years; the continuous line shows strikingly the enormous increase in these operations. The number of deaths annually is also shown, and the dotted line shows how the percentage of mortality has progressively fallen from 30 per cent. in 1886 to 3 per cent. in 1910. In Chart II. I have selected four typical classes of operation—viz., ovariotomy, hysteropexy, operations for inflammatory tubal disease, and hysterectomy for fibroids; and in each case I have recorded the number of operations performed during five periods of five years each, together with the number of deaths and the percentage mortality during each period.

I should state in passing that the figures given for the years 1886–88 and 1890–94 are incomplete, for in those days there was no registrar, and the only way of obtaining records was to go through the case books; and some of the case books for those years are missing from the hospital archives. In the year 1895 the hospital was reorganised, and Dr. Comyns Berkeley, now surgeon to the hospital, was appointed registrar; from that year onwards there has always been an

CHART I.—*The Progress of Abdominal Surgery during 25 Years at the Chelsea Hospital for Women.*



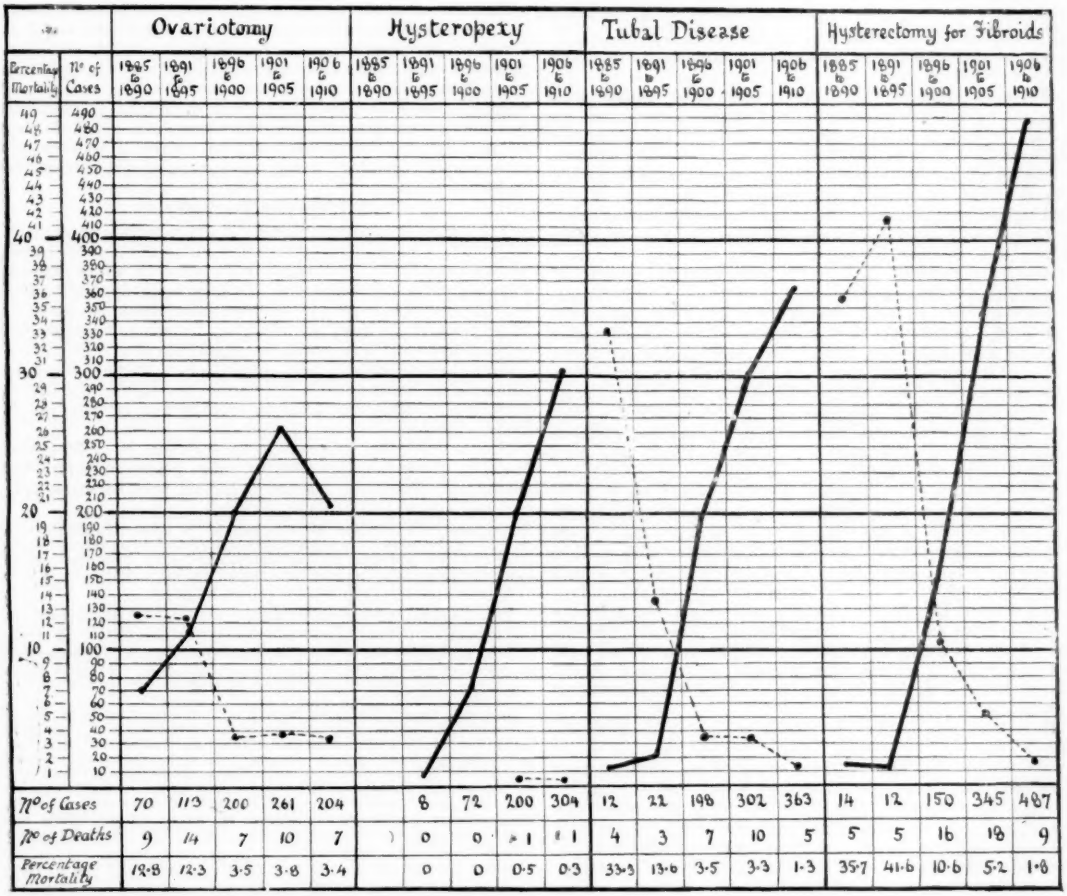
The dark line shows the total number of abdominal operations in each year. The dotted line represents the mortality per cent.

* A communication read before the Clinical Society of Manchester on Oct. 17th, 1911.

excellent summary of the medical and surgical work done, compiled by the registrar for the annual report.

Other hospitals could doubtless furnish an equally instructive picture of progress. I have chosen this hospital because I know it best, because its records are open to anyone to examine, and because I believe that it reflects the progress of gynæcology as faithfully as any hospital in the kingdom. The results shown in these charts are as startling as they are gratifying, and two questions formulate themselves for consideration. First, how has this progress of gynæcology been brought about? Secondly, what benefits has the progress of gynæcology conferred on the community? The answer to the first question is derived from a study of the evolution of modern gynæcology. In discussing the second question I hope to show that the saving of life, great as it has been, has not been the only benefit obtained—perhaps it has not even been the greatest benefit, because, while we may reckon the lives that have been saved in terms of thousands we may compute in tens of thousands those cases where suffering has been relieved, chronic invalidism has been obviated, and women otherwise destined to be a burden on their families have been restored to usefulness and activity.

CHART II.—*The Progress of Four Classes of Operation during 25 Years at the Chelsea Hospital for Women.*



The dark lines show the total number of operations in each period of five years. The dotted lines represent the mortality per cent.

Ovariotomy.

If I had to select the date from which the evolution of modern gynæcology might be reckoned I should take the year 1809, when Ephraim MacDowell, of Kentucky, performed the first successful ovariotomy. Lawson Tait gave this credit to Robert Houstoun, who was born about the year 1664, and who read before the Royal Society in 1724 a paper entitled "An account of a Dropsy of the Left Ovary of a Woman aged 58, Cured by a Large Incision made in the Side of the Abdomen by Robert Houstoun." Reading the interesting summary of this paper quoted by Lawson Tait,[2] I am led to the conclusion that the operation should properly be included in the category of tapping, as there is no internal evidence that the cyst itself was actually removed. Therefore, whilst I concur heartily in preserving the name of Dr. Robert Houstoun on the roll of fame, I feel I must accord to MacDowell the honour assigned to him by the medical profession in America, in the title "Father of Ovariotomy."

Those whose sense of nationality makes them crave for British credit in the inception of ovariotomy, may find comfort in the fact that John Hunter in 1786 was the first to point out deliberately the feasibility of the operation. In his surgical lectures, speaking of ovarian cysts, he says:—

> Tapping is only a palliative cure, and a large trocar is required, as the fluid is generally gelatinous, and then only one cell is opened. If taken in the incipient stage, they might be taken out, as they generally render life disagreeable for a year or two and kill in the end. There is no reason why women should not bear spaying as well as other animals. It would simply be opening the cavity of the abdomen, which we often do without inconvenience in healthy constitutions.

After MacDowell's case there were several others recorded from time to time. MacDowell himself operated 12 times, with eight recoveries. But the profession as a whole viewed such performances either with scepticism or with more or less veiled disapproval; and it is a pleasure to record, before a Manchester audience, the fact that the next important advance was made by a Manchester man, Dr. Charles Clay. He performed his first successful

operation in 1842, and in all he operated on 395 cases, with 101 deaths, his mortality being thus about 25 per cent. Lawson Tait paid a generous and well-deserved tribute when he said that "it was Clay of Manchester who first showed that ovariotomy could be made an operation more justifiable by its results than any of the major operations of surgery."[3]

It was while Clay was at work that chloroform anæsthesia was discovered and introduced, and there can be no doubt that anæsthesia was the first of the important factors that made abdominal surgery possible. And yet in 1863, when he had performed 108 ovariotomies with 74 recoveries, he appeared to be distinctly doubtful of the value of anæsthesia, for in a paper entitled "Observations on Ovariotomy" we find this curious passage[4]:—

With regard to the use of chloroform I am not certain if this agent has really added to the success of ovarian operations. The first 14 of my cases were undertaken before it was discovered, and of these 14, 9 recovered. But though I willingly admit the almost impossibility of obtaining the consent of females (at the present time) to submit to so formidable an operation without the aid of this valuable agent; and though I am equally convinced that chloroform is of itself one of the greatest boons to suffering humanity, yet, if it could be accomplished, I should infinitely prefer to operate without it, as the patient would bring to bear on her case a nerve and determination to meet so great a trial, which would assist beyond all value the after-treatment; it would also relieve the case from that most distressful retching and vomiting so common after all abdominal operations where it is used to the extent that it is required in ovariotomy.

We may imagine that Clay would have hailed with unfeigned gladness the discovery of spinal analgesia.

This is not so much a historical review as a meditative retrospect. I will not attempt, therefore, to name all those who with untiring patience and unfailing courage helped to win the battle of surgical progress against the forces of prejudice, partisanship, and pusillanimity arrayed against them. Let it suffice that we recall with gratitude the names of Baker Brown and Thomas Keith, who paved the way for future success by the introduction of the intraperitoneal method of treating the stump. Furthermore, I will not go into details of the steps by which the operation was gradually made safer and safer. There were the advocates of the long incision and the short incision; those who used clamps and those who used ligatures, and these again formed two camps, the long-ligature men and the short-ligature men. But while the technique of the operation was gradually being worked out and improved, the mortality still remained distressingly high. To the late Sir Spencer Wells has been justly attributed a large measure of the credit for establishing the operation of ovariotomy on a firm basis; yet in 1878, when he had completed 900 cases, the number of deaths amounted to 221, giving a mortality of 24·5 per cent. This was only a shade better than Charles Clay's mortality of 25·5 per cent. for 395 cases. In the last 100 of Spencer Wells's cases there were 17 deaths. Such results in these days would make the profession shudder, and might well send the operator from surgery to sheep-farming. In our Chelsea records the mortality from 1885 to 1890 was down to 12·8 per cent.; and if we ask what brought this about I should answer without hesitation that it was the introduction of antiseptics.

The antiseptic system—or Listerism, as it used to be called—was not, of course, ideal; indeed, it had many palpable disadvantages, and if it had not evolved into something better abdominal surgery would have remained severely handicapped. Many of us can remember the ovariotomies in the old Manchester Infirmary years ago; the carbolic spray theoretically catching and killing hypothetical aerial germs, but actually drenching, irritating, and cooling the abdominal viscera; the carbolic lotions that roughened our hands and the patient's skin; the iodoform that was dusted over wounds and into cavities with a generous disregard of cost and a reckless indifference to iodoform poisoning. We can remember how these ovariotomies were performed with a kind of mystic secrecy worthy of the rites of the Masonic craft; spectators were excluded, and the general ward was too unhallowed for these patients. And yet they died with a tragic frequency.

Compare then with now. At the present time abdominal operations are performed before many spectators, and the patients in our large hospitals are nursed in the general ward. At the Chelsea Hospital for Women the mortality has dropped in 25 years from 12·8 per cent. to 3·4, and the results in general hospitals are practically as good. Comparing my own cases at Chelsea and at the Prince of Wales's General Hospital, Tottenham, I find that at Chelsea from 1906 to September, 1911, I had 71 cases two deaths, or 2·8 per cent.; whilst at Tottenham during the same period there were 91 cases with three deaths, or 3·3 per cent.

What an interesting commentary on the words of Tyler Smith, uttered just 50 years ago from the Presidential chair of the Obstetrical Society of London, when he said[5] "In the long run, I believe, the results cannot be favourable either in general or in special hospitals." If Tyler Smith was pessimistic his pessimism was at least well grounded, for it was based on the liability of patients to develop peritonitis after ovariotomy; and he recognised peritonitis as "a disease closely resembling puerperal or surgical fever and due commonly to some poisonous external agency." If he could have foreseen that this disease was preventable he would doubtless have been more optimistic; and this leads me to point out that this is precisely the key to the whole situation. Our results to-day compare favourably with those of 25 years ago because peritonitis—i.e., sepsis—has been practically conquered. Lister showed the way when he introduced antiseptics, and the crowning triumph of Lister's antisepsis was that it gave birth to asepsis.

I have dealt at some length on the evolution of ovariotomy, first, because it was this operation that opened up the field for other operations on the pelvic organs; and, secondly, because nearly all the light that has illuminated the problems of gynæcological pathology was thrown into the abdomen through surgical incisions. In the departments of medicine and surgery the post-mortem room has been a full-flowing fountain of knowledge; but in the realm of gynæcology incomparably greater results have been derived from the operating theatre.

Extra-uterine Pregnancy.

Take, for instance, the subject of extra-uterine pregnancy. In spite of necropsies, the facts that were known about extra-uterine pregnancy were meagre in the extreme before patients suffering from this dangerous condition were operated upon. In the text-books of our student days, such as those of Thorburn and of Hart and Barbour, hæmatocele and hæmatoma of the broad ligament were described as if they had no relation to extra-uterine pregnancy; in fact, in the differential diagnosis of extra-uterine pregnancy one of the conditions from which we were told to distinguish it was pelvic hæmatocele!

Nearly 50 years ago—or to be precise, in 1863—John Marshall showed a specimen of tubal gestation before the Obstetrical Society of London.[6] It had been removed post mortem, and in the words of Marshall,

An inquest was held upon the deceased, but it being difficult to trace any direct connection between the administration of any abortifacient drug and the post-mortem appearances, and still more difficult to ascertain from whom the drug had been purchased, a verdict of "Death from natural causes" was returned by the jury.

The discussion that followed was marked by an instructive difference of opinion between an obstetric physician (Dr. Grailly Hewitt) and a surgeon (Mr. Spencer Wells) as to the chances of saving such a patient by operation. I quote from the Transactions:—

Dr. Grailly Hewitt had grave doubts as to the practical feasibility of carrying into effect any operative measures for the relief of these cases of rupture in Fallopian pregnancy. The condition of the parts was peculiar, the number of blood-vessels to tie was considerable, and the condition of the uterus and its appendages wholly different from that present in cases where ovariotomy is practised safely. But this was not all. The chief obstacle lay in the difficulty of diagnosis. ..... Peri-uterine hæmatocele he would mention as one of the conditions not rarely presenting symptoms very closely identical with those of rupture of an extra-uterine pregnancy.

Here is a picture for us; so near the truth and yet so far; here is a man living in the dense darkness of a fog with the clear sunshine only a few yards above him. Then speaks the surgeon:—

Mr. Spencer Wells said that if it were certain that a patient was dying from internal hæmorrhage, owing to a rupture of the sac of a tubal pregnancy, he could see no sort of difficulty in the way of a surgical operation. The Fallopian tubes and vessels in the hard (*sic*) ligament would be divided and secured exactly as in every case of ovariotomy. The operation would be extremely simple; what the result would be was quite another question.

Verily, as Tennyson has it, "Knowledge comes, but Wisdom lingers." In spite of Spencer Wells's clear expression of opinion as to the practicability of operation, women went on dying unrelieved and without any attempt being made to save them. In 1876 Parry[7] could still write as follows:—

From the middle of the eleventh century, when Albucasis described the first-known case of extra-uterine pregnancy, men have doubtless

watched the life ebb rapidly from the pale victim of this accident, as the torrent of blood is poured into the abdominal cavity, but have raised no hand to help her. Surely this is an anomaly, and it has no parallel in the whole history of human injuries. The fact seems incredible, for if one life is saved by active interference, it may be triumphantly pointed to as the first and only instance of its kind on record. In the whole domain of surgery—for we cannot look to other than surgical measures under the circumstances—there is now left no other field like this. ..... The only remedy that can be proposed to rescue a woman under these unfortunate circumstances is gastrotomy—to open the abdomen, tie the bleeding vessels, or to remove the sac entire.

Even these impassioned words found no practical response till seven more years had passed, and then Lawson Tait came forward as the champion of these dying women and deliberately and successfully operated for a tubal rupture. There can be no doubt that his example led to the saving of many thousands of lives. At the Chelsea Hospital for Women, from 1895 to 1910, 156 operations were undertaken for extra-uterine pregnancy, with five deaths, a mortality of 3·2 per cent., and in my own practice I have had occasion to operate in 87 cases with three deaths, or 3·4 per cent. If we multiply such experiences by those of other operators we get some kind of idea of the debt that mankind owes to Lawson Tait.

Turning to the question of the light that surgery has thrown upon the pathology of these conditions, we find that in 1889 Bland-Sutton described for the first time the tubal mole, under the title of "An Apoplectic Ovum from the Fallopian Tube."[8] The importance of this communication cannot be over-estimated, for it was not only the first correct explanation offered of rupture of the tube, but it also gave us a definite criterion by which to judge whether or not a hæmorrhage into the peritoneal cavity was due to an extra-uterine pregnancy.

In 1894 the late J. W. Taylor, of Birmingham, described an intra-peritoneal hæmatocele as being produced by a blood-drip through the still open fimbriated extremity of the tube[9]; and I may mention in passing that this able and lamented surgeon's monograph on the subject[10] is still the most enlightening and complete account of it that we possess. His observations on hæmatocele were confirmed and expanded by Cullingworth in several valuable communications; Sampson Handley in 1902 described the para-tubal hæmatocele[11]; Catherine Van Tusschenbroek described in 1899 the first authentic case of ovarian pregnancy[12]; and by the work of Berry Hart, Freeland Barbour, Clarence Webster, and many others, there is no field in gynæcological pathology that is now so well explored and so well understood as that of extra-uterine pregnancy.

The Surgery of Inflammatory Disease of the Tubes.

Those of us who were students 25 years ago must have a vivid recollection of the confusion into which our minds were thrown when we attempted to understand the terms "peri-metritis" and "parametritis." Those who wrote text-books had no clear conceptions on the subject of pelvic inflammation; how, then, could they convey any clear ideas to us? Bernutz, in 1879, was the first to call attention to the fact that "perimetritis" was due to tubal inflammation; and in the same year Lawson Tait performed the first operation for the removal of inflamed tubes. For some years he went on with these operations, encountering considerable opposition. In 1882, he showed before the Obstetrical Society of London specimens from 15 cases of hydrosalpinx and pyosalpinx, which he exhibited "to show that the criticism offered against him of removing uterine appendages unnecessarily was unfounded." In 1883 he could record 62 cases without a death; and in a discussion on this paper[13] Dr. Robert Barnes made the significant statement that "no doubt there would be some opposition to his views—timid opposition, on the one hand, from the *far niente* school; violent from the dogmatic." In this discussion several speakers took up the position that conditions such as hydrosalpinx, which did not threaten life, did not justify operation; and in his reply Lawson Tait showed how far he was in advance of current medical opinion when he said that "we could not stop short of dealing with matters that affect life only. Hydrosalpinx was a frequent cause of the most intense suffering, and, therefore, he would, and did, remove it by surgical operation without hesitation."

Ten years passed, and still Lawson Tait's views were not accepted in high places. In 1892 Cullingworth read before the Obstetrical Society of London an important paper[14] on "The Value of Abdominal Section in Certain Cases of Pelvic Peritonitis." It is most instructive to read the discussion that followed, in the light of the teaching and practice of the present time. Some of the speakers, and among them the leading obstetric physicians of the day, offered the keenest opposition to Cullingworth's views; and it is refreshing, by way of contrast, to read the enlightened remarks of such men as Mayo Robson, Peter Horrocks, Henry Gervis, John W. Taylor, and Heywood Smith. Mayo Robson, with a surgeon's insight, compared these cases with recurrent attacks of inflammation of the vermiform appendix. "If," he said, "they did not hesitate in such cases to remove the appendix, why should anyone argue that a similar, though larger, collection of pus, in the Fallopian tube, should not be treated on the same principles?" Heywood Smith recalled the fact that some months previously two of the speakers "had issued a quasi-authoritative manifesto, wherein they feebly attempted to apply the brake to the advanced gynæcology of the present day."

But the wheel of progress was already turning in such vigorous fashion that the said brake had practically no effect; and we may claim for Cullingworth that on that day he added no little to the momentum of this wheel, for afterwards no authoritative attempt was made to check its revolutions, and from that paper we may date the general adoption of the view he upheld. Cullingworth's mortality was 18 per cent. in his first 50 cases; in his second 50 it was 8; in his last 25 cases he had no deaths; and the records of the Chelsea Hospital for Women amply support his contention that experience must lead to greatly diminished mortality. From 1885 to 1890 (before Cullingworth's paper was read) the mortality at Chelsea was 33·3 per cent. on 12 cases; from 1906 to 1910, 363 operations for inflammatory disease of the appendages were performed, with a mortality of 1·3 per cent. Perchance in the Elysian fields Charles Cullingworth may be able to receive this tribute; he may "see of the travail of his soul, and be satisfied."

Hysterectomy for Fibroids.

Once more, in tracing the origin of this operation, we must dip into the semi-distant past; and once more we must bring into the light the name of Charles Clay, of Manchester. To him belongs the double record of having performed the first complete extirpation of the uterus and ovaries by the abdominal route, in January, 1844, and also of having done the first successful hysterectomy for fibroids. The plan he adopted in the latter case was to tie a ligature tightly round the cervix and cut the ends short, thus performing the first intraperitoneal hysterectomy. This was in January, 1863, and the Obstetrical Transactions for that year contain an interesting woodcut of the uterus after removal. He was led to adopt this procedure from his experience in ovariotomy; but in the hands of subsequent operators nothing but failure resulted from this method.

In April of the same year Koeberlé, of Strasburg, performed his first hysterectomy; and to him is due the credit of having brought the operation into the range of practical surgery by the introduction of the extraperitoneal method of operating by means of the serre-nœud. The method remained the best for many years, although the resulting mortality was still very high. In London, Granville Bantock and Knowsley Thornton were among the most successful of its exponents. It was practised at the Chelsea Hospital for Women as late as 1895, and as far as I have been able to trace the records from 1885 to 1895 there were 21 cases, with 9 deaths—a mortality of 42·5 per cent. In 1893 and 1894 I assisted some of my seniors at this operation, but I never performed it myself, for happily by the time that I did my first hysterectomy we had been shown a more excellent way.

Meantime, another method of operating for fibroids had been introduced by Lawson Tait—namely, the removal of the ovaries and tubes; the object of this was to cause a shrinkage of the fibroid tumours, on the analogy of what was supposed to happen at the menopause. In advocating this method, Tait was chiefly influenced by the high mortality of what appeared to be the only alternative plan—viz., hysterectomy by the extraperitoneal method; and it is interesting to note that this usually clear-sighted man was led to express a curiously erroneous forecast of the future of hysterectomy. He said, in supporting the claims of the removal of the ovaries,

> Considering that hysterectomy has at present, and (as the use of the clamp in this operation is inevitable) is ever likely to have, a very heavy mortality I think we are bound in all cases of doubt to give our patients the benefit of that doubt, and to resort to the less formidable operation in the first instance.[15]

In 1892 Baer, of Philadelphia, introduced the most important change in the history of operations for fibroids by his plan of ligaturing the uterine arteries and leaving the cervix free. This, as Bland-Sutton has pointed out,[16] revolutionised the surgical treatment of uterine fibroids, and no one has done more than Bland-Sutton himself to establish the operation on a secure footing. He joined the Chelsea Hospital for Women in 1895, and his influence is clearly shown in Chart II. In 1891 to 1895 rather more than 12 hysterectomies were done, with a mortality of over 40 per cent.; in the next five years the number rose to 150, and the mortality dropped to 10·6 per cent.; in 1901 to 1905 there were 345 hysterectomies, with a mortality of 5·2; and in 1906 to 1910 the number stood at 487, with a mortality of 1·8.

I doubt if the whole range of surgery could show any other operation that presented such an extension of scope and such rapidly diminishing mortality. I feel sure that all my colleagues at Chelsea would concur with me in assigning a large share of the credit for these results at our hospital to the presence of Bland-Sutton on the staff.

Among the pathological questions on which the surgery of fibroids has afforded us valuable information we may mention the subject of fibro-adenoma of the uterus, the mode in which degenerative changes in fibroids are brought about, the association of pregnancy with the condition known as red degeneration, and the association of fibroids with disease of the ovaries and Fallopian tubes.

There are other developments of gynæcology that would afford a profitable and interesting study—for example, the evolution of operations for carcinoma of the uterus and for the surgical treatment of displacements; but I have already taken up so much time in unfolding this part of my subject that I must omit them, and pass on to a brief consideration of the second question to which I wish to invite your attention.

What Benefits has the Progress of Gynæcology Conferred on the Community?

Chart I. shows us that in the five years 1885–86 to 1889–90 the number of abdominal operations at the Chelsea Hospital for Women was something over 122; in the five years 1906–10 the number was 1880, a difference of about 1750. What happened to these 1750 women that were not operated upon 20 years ago? We can say without hesitation that a number of them died for the want of operation. Some of them would be cases of ovarian tumours, because, as we see from Chart II., about three times as many ovariotomies were done in the last five years as were done in the first five, although even in those earlier days ovariotomy was a definitely recognised operation. Other fatal cases would be those of extra-uterine pregnancy; it might be said that these did not die for want of operation, as they stood a very good chance of dying if operated upon. At any rate, the five cases done in 1886–90 all died. But in 1906–10 there were 59 such operations with one death, and a large proportion of these cases would certainly have died without the help of surgery. Then there were patients with inflammatory disease of the appendages; many of these conditions are, of course, not fatal, but there is quite an appreciable percentage of cases of pyosalpinx that destroy life. In our first five years 12 operations were done for inflammatory disease; in the last five years, 363; of these 5 died, but on the modest computation that in 10 per cent. of cases inflammatory disease proves fatal, 35 would have died without operation, against 5 in spite of it.

Operations for displacement do not come into consideration at all here, because the condition is never fatal. In the case of hysterectomy for fibroids, however, we again come to a group in which an appreciable number of patients die if not surgically relieved; and of such operations there were 14 in the first five years, against 487 in the last five. I have not gone into the question of carcinoma of the uterus, but in this department we should find a large number of cases of the direct saving of life by surgical intervention.

I think that I have said enough to show that the progress of gynæcology has led to the saving of many lives; but this could be said of the gynæcology of 25 years ago, although the proportion of lives saved to-day is much larger than it was then. The striking feature, however, in the evolution of the last 25 years is the phenomenal extension of the scope of operations, not for the saving of life alone, but for the relief of suffering. At a time when abdominal surgery of all kinds was attended by a high rate of mortality it was wise and practical advice to recommend patients to endure their sufferings with Christian resignation rather than face the risks of surgery, and patients might have quoted with justification the saying of King David, "Let me fall into the hands of God, rather than into the hands of men."

Let us look a little more closely at some of these operations designed to relieve suffering. We need not consider the cases of ovarian tumour, ruptured tubal pregnancy with free hæmorrhage, and carcinoma of the uterus. In such cases we must operate for the direct purpose of saving life. Consider such conditions as *tubal inflammation* and *tubal pregnancy with restricted hæmorrhage*. That some of these cases may prove fatal is true enough, but the important reason for operating on such cases to-day is not that the patient's life is directly threatened, but that the alternative to operation is prolonged illness, constant suffering, more or less complete invalidism, and disablement. Some of these women in the poorer classes are the breadwinners, and disablement is for them a worse evil than death.

Thirty years ago it was only the few men that had the surgical genius of a Lawson Tait who were justified in taking up the position he adopted, and in saying, in the words I have already quoted, "We cannot stop short of dealing with matters that affect life only." The majority of those who opposed his views were probably quite justified in the interests of their patients in refusing to operate on such cases; they doubtless did the kindest thing in leaving them alone. But think of the amount of suffering saved, the workers that have been restored to the position of earning their livelihood, the relief to the community in the conversion of dependent invalids into sound members of the body corporate; think of all this amount of good done as represented by the 863 cases of operations for diseased appendages in the last 15 years at the Chelsea Hospital for Women.

It was objected formerly, and I believe that the objection might be found still in some places, that these women remained chronic invalids, that they were unsexed, and rendered unfit for wifehood; that at the best they remained hysterics, and at the worst they became lunatics. These objections were theoretical, and I was able to show last year, from a detailed investigation of the after-results of these operations, based on 200 cases in which both ovaries were removed,[17] that 70 per cent. of the patients regained perfect health and vigour and retained their sex instincts, and only two patients developed mental symptoms. Further, from a study of the after-results of abdominal operations generally it was shown that these figures correspond closely to those of cases in which one or both ovaries had been preserved.

There is another aspect of the question, which we must think of in a chastened spirit, because it is a terrible reproach to the medical profession. Many patients with chronic pelvic disease suffer intermittently; they are seldom acutely ill, but they are never completely well; and because there is not much to show for their sufferings they have been treated as neurotics and almost as malingerers; they have been drenched with bromides and valerian; they have been sent from spa to spa; they have been driven to seek relief in alcohol or morphia; or they have found a doubtful haven among the faith-healers and the "Christian Scientists." I contend that we have no right to describe a woman as neurotic unless we can be certain that she has no organic disease.

A few words about *uterine displacements* and their surgical treatment. These are conditions that are not fatal, and operations undertaken for their relief should have no mortality. As a matter of fact, in the 584 cases operated upon at Chelsea in the last 20 years there were 2 deaths—one from pneumonia and one from diabetic coma. Such deaths might, of course, occur without operation. The value of these operations consists partly in the fact that many patients are cured who cannot be treated by other means (for example, cases of adherent retroversion and some cases of prolapse and procidentia); and partly in this, that patients are saved from years of pessary treatment. I hold that pessaries are a necessary evil—that is, they are necessary sometimes, but evil always. If I could avoid it, I would never use one. At present I see no prospect of consigning them one and all to the bonfire, but this may come to pass in the future, and meanwhile I take such comfort as I can from the thought that at least no pessary will be known by my name.

Now if by means of a safe operation a patient can be saved

from the unpleasantness of frequent examinations, from the discomforts of discharges and their attendant douchings, and from being chronically under the doctor's hands, and if patients desire such relief, surely they are entitled to have it. The radical cure of hernia is considered justifiable, to obviate the constant wearing of a truss; why not the radical cure of a uterine displacement to obviate pessaries? Well, the progress of gynæcology has opened up this field of relief to women, and I think that the table of hysteropexies in Chart II. represents a very great amount of benefit in the relief of suffering and in the emancipation from disablement.

If we turn to the subject of *uterine fibroids*, we again have a condition in which a directly fatal result is produced in only a minority of cases, but the amount of suffering and disablement is appalling. What a boon to the sufferers and what a gain to the community is expressed in the 982 cases of hysterectomy for fibroids performed at the Chelsea Hospital for Women in the last 15 years. Twenty years ago the mortality was 35–40 per cent., and physicians were amply justified in advising patients whose lives were not directly threatened to endure their sufferings rather than resort to operation. Of course, this procedure reacted on the mortality, because if operation for fibroids is delayed until it is a question no longer of merely relieving suffering, but only of saving life, the mortality must necessarily be much higher. Still, even in uncomplicated cases the mortality was high in those days, and patients seldom yearn for death as a means of relief from suffering: it is, after all, better to live as an invalid than to die cured.

Now when a patient with fibroids has to be told that the resources of medicine are all spent and that the succour of surgery is more cruel than kind, it is a great comfort to be able to hold out some kind of hope, however unsubstantial; and so a fairy tale was built up and decorated to represent a scientific theory to the effect that the menopause was the natural cure for fibroids. And patients were told in all seriousness and good faith, "You must wait for the change of life and then these tumours will shrink and disappear and you will get well." And the patients went on patiently draining their life-blood away, carrying about enormous tumours that prevented them from moving about, hoping against hope that the delayed menopause would arrive, like some millennium, to give them peace. Some of them survived the worst troubles and escaped with their lives, though at the price of being permanent invalids; others found that the menopause, when it came, came not to bless but to curse, bringing in its train degenerative changes, infection, sepsis, and death.

Now the tragic thing is that to-day, when the mortality after operations for fibroids has dropped almost to vanishing point in uncomplicated cases, and when the operative risks in serious cases are less than the risk of leaving things alone, the hoary myth survives; and whatever moral comfort it may have given in earlier years, it is certain that in later years it has wrought endless mischief and inflicted a grievous and totally unnecessary amount of suffering. I may be told that some fibroids settle down and ultimately cause no trouble. With all my heart I grant it; but how many? And—

> "Who can so forecast the years
> Or find in loss a gain to match?"

How are we going to tell which of our patients in this lottery are going to draw the few prizes and which are destined for the many blanks? Why should we condemn them to suffer for years with a doubtful prospect of cure and a probability that they will have to undergo operation in the end? With such a table as that in Chart II. before me, showing that in the last five years 487 hysterectomies were performed, with a mortality in all cases, serious as well as simple, of 1·8 per cent., I am emboldened to take up the position that all fibroids should be operated upon in the early stages unless some weighty reason to the contrary can be shown. If operation is safe before complications have set in (and I think that the truth of this has been demonstrated); if cases that are left suffer seriously and are severely incapacitated (a proposition that requires no demonstration); if the majority of cases that are left come to operation in the end (and I think that this proposition is equally true); and if, finally, the operative risk is much greater when complications have set in (a fact that no one will dispute),—then I hold that we are not justified in refusing relief in the early stages, in condemning patients to years of suffering and incapacity, and in exposing them after all to the much greater operative risk by waiting till life is seriously threatened.

When we look back at the evolution of gynæcology during the last 25 years we see that many things are now plain that were then shadowy and ill defined; we see that our knowledge of the pathology of ovarian and uterine tumours, of pelvic inflammation, and of tubal pregnancy has been enlarged and rendered more precise; we realise that we owe this heritage to the courage, the patience, and the insight of the pioneers of gynæcological surgery, We see, further, that this surgical activity has resulted not only in rich additions to our stores of knowledge but in an immense saving of valuable lives, in an enormous diminution in the sum-total of human suffering, and in the raising of an untold number of women from beds of invalidism to active happy, healthy life.

But if we may look back with pride we must look forward with humility; there is so much still that we do not know; there are so many lives still that are not saved. But the success of the past is the earnest of the future; and every search for further knowledge, every steadfast endeavour in applying our knowledge to our practice, will constitute

> "a closer link
> Betwixt us and the crowning race
> Of those who, eye to eye, shall look
> On knowledge, under whose command
> Is earth and Earth's, and in their hand
> Is nature like an open book."

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Upper Wimpole-street, W.

METASTATIC SUPPURATIVE CYCLITIS OCCURRING IN A WOMAN WITH PYÆMIA; ABSCISSION; RECOVERY.

BY SIR WILLIAM COLLINS, M.S., M.D., B.Sc. LOND., F.R.C.S. ENG.,

SENIOR SURGEON TO THE LONDON TEMPERANCE HOSPITAL AND TO THE ROYAL EYE HOSPITAL.

A MARRIED woman, aged 54, who was admitted into the London Temperance Hospital on April 5th, 1911, complained that she had been ill for several weeks with general loss of energy, accompanied for the last fortnight by "chills and flushes" and "pains all over her." She had vomited several times. She had had rheumatic fever 20 years ago. There were scars over the right mastoid and right angle of the lower jaw dating from childhood. On admission she appeared frail, ill, and anæmic. Her temperature was 103° F.; the tongue was red, dry, and glazed; the pulse-rate was 108, and the respirations were 26. The most salient symptom was proptosis of the right eye. The conjunctiva was injected and inclined to be chemosed; tension full; cornea steamy; pupil immobile; iris woolly; some opacity on the lens capsule. Vision, large objects only; movements of eyeball restricted and very painful. An elastic tender swelling was found on the right side of the neck over the upper part of the carotid. A note made at the time said: "Suggestive of inflammation round a thrombosed jugular vein." There was some impaired resonance at the right apex. The heart sounds were clear but weak; abdomen *nil*. The patient complained of pain in the left knee, and there was some bright redness and œdema over that joint.

On April 6th, under ethyl chloride, I incised the cervical swelling, letting out half an ounce of watery pus. I diagnosed suppurative iridocyclitis of the right eye and advised abscission. The proptosis and chemosis had greatly increased, and the pain prevented sleep. On the 7th, under chloroform, I abscised and eviscerated the right eye and washed out the scleral cup with hot sterilised water. From the 8th to the 12th the patient was greatly relieved, and her temperature fell. Some fluctuating swellings in the left arm appeared

which were incised and pus was evacuated. Her general health was improving under generous diet. The pain had gone from the left knee. The abscess in the right cervical region required further opening and drainage. The right orbit quieted down and in a month the patient left the hospital quite well.

The abscised portion of the right eye showed well-marked suppurative cyclitis. There was a coronet of pustules jutting out from the intervals between the ciliary processes. The pathologist reported that short chain streptococci were found in the pus from the neck.

The sequence of events appeared to be a pyæmic condition arising from the abscess in the right side of the neck, not very acute in its character and containing watery pus, possibly of old tuberculous gland origin. Thence absorption appears to have taken place with metastatic cyclitis, which became the dominant feature of the illness, metastatic abscesses in the left arm, and a threatened synovitis of the left knee. The lungs, however, did not give any evidence of a breaking down lesion.

In such a condition of proptosis and chemosis it is not always easy to decide between an intra-ocular and an extra-ocular cause, an iridocyclitis leading on to panophthalmitis or an orbital cellulitis which may lead to meningeal complication. In this case the woolly iris, the suggestion of lymph on the anterior capsule and the absence of a "brawny" condition of the lids, despite the exophthalmos and restricted movements, led me to infer a suppurative iridocyclitis.

A careful observer of the case had not without some reason suggested septic thrombosis of the cavernous sinus and of the internal jugular vein as explicative of the associated ocular and cervical symptoms. The case was one of extreme clinical and pathological interest and the immediate relief afforded by the abscission was very marked. I prefer abscission to excision in such cases as being less likely to infect the orbital tissues.

Regent's Park, N.W.

URETERAL GRAFTS.

BY A. CHIASSERINI, M.D.

(*Laboratory of Surgical Pathology, Rome.*)

THE surgery of the ureter has lately acquired a standing of its own, as the operations and experiments upon such an important structure have become more and more frequent, in consequence either of surgical affections of the reno-vesical ducts (stones, tumours, inflammations, &c.) or, more often, of neoplasias of the pelvic organs spreading along and infiltrating at the same time the ureters.

The surgical procedures upon these range from anastomosis (end-to-end, lateral anastomosis, end-in-end, &c.), when the ureter has been cut across and the two ends can be drawn near each other, to the various methods of implantation of the ureter in the different organs (bladder, rectum or sigmoid, vagina, urethra, skin, ureter of the other side). But ureteral anastomosis, as much as implantation of the ureters, has nearly always given uncertain or unfavourable results and rarely good ones; this, either because of the formation of urinary fistulæ followed by an ascending infection or the occurrence of a stenosis with consecutive hydronephrosis and pyelonephrosis.

This being the case, many surgeons thought of replacing the piece of tube which had been cut away either with some inorganic material, as glass tubes (Casati, Baori), tubes made of silver and caoutchouc (Israel), or with whole organs taken from the surrounding structures. These were the first experiments of transplantation applied to such a vital and delicate structure as the ureter, and they were tried on men and animals. Casati, Boari, and Van Hook cut a flap out of the bladder and sutured it in the shape of a tube to the proximal end of the ureter. Rydygier did the same with a flap of skin. Fenger and Bacon, Poggi and Tizzoni, D'Urso and De Fabi, Esau, and Moskowicz employed loops excluded from the bowel but still attached to their mesentery, while Giannettasio, Rydygier, and Franke transplanted in the same way the appendix, and D'Urso, De Fabi, Flörcken, and Stubenrauch the uterine horns of bitches. The function of the ureters was generally impaired or destroyed because of the frequent stenosis and infection, but the transplantation of the uterine horns gave better results.

In the meanwhile new surgical procedures were invented in order to make the work of transplantations more practical: bones, periosteum, joints were transplanted in the regions where such structures were needed. Carrel, Guthrie, and Stich were the first to attempt successfully, with a special operative technique, vascular grafts. The tubular shape of the vessels and their different width could have made of them an excellent material for substituting several hollow structures of the body. According to this principle Payr used them to drain the cerebral ventricles in cases of hydrocephalus, while Baumgarten, having tied a piece of vessel at the two ends, so that no blood could pass through it, observed a proliferation of the cells of the intima. The conclusion was that the presence of circulating blood in the vessels did not seem absolutely necessary for their life.

Such grafts were then used for other purposes: to cure hypospadias (Tanton), to replace the common bile duct in dogs (Tietze). From this to the vascular transplantation of the ureter was but a short step. In fact, in 1908, Melchior, and afterwards Rick, Holbauer, and Klepp tried (with success according to them) to replace in dogs a piece of ureter cut off with a segment of vessel. The same thing was done by Tuffier (uretero-phlebo-enterostomy) in a woman. The last-named surgeons did not make any histological research on the graft after a certain time had elapsed, whereas Tietze and Flörcken found that the transplanted vessel soon was replaced by connective tissue. New experiments were needed to decide upon this important subject. Therefore, on the advice of Professor Alessandri, and in conjunction with Dr. Dominici, I began last November a series of experiments on the ureter of dogs with vascular grafts. Dr. Dominici gave an account (regarding 10 cases) before the Medical Academy of Rome (April, 1911) and in the Folia Urologica (October, 1911) of the operative technique followed, and drew the conclusions which could be inferred from the macroscopical examination. On my own account I made eight more experiments and examined histologically sections taken from each of the 18 cases. In experimenting I made use sometimes of pieces of vein (external jugular, femoral, and saphenous), sometimes of the carotid artery. I reached the ureter by the extra-peritoneal route and sutured the two ends of the ureter to the transplanted vessel by Carrel's method (slightly modified), having first cut away a piece of ureter somewhat shorter than the graft. In 12 cases the continuity between the two ureteral ends was re-established, but a stenosis or a complete occlusion corresponding to the vascular graft was the usual result. Briefly the conclusions that I came to are as follows: 1. There is a possibility of the vessel introduced between the two ureteral ends becoming firmly united to them. 2. The piece transplanted, a few days after the operation becomes shortened so as to draw the two ureteral ends nearer together. 3. The graft becomes thicker and hard, while the lumen is nearly obliterated. 4. The stenosis causes a stoppage in the flow of the urine with consecutive dilatation of the canal of the ureter and hydronephrosis.

The histological examination thus confirmed what could have been inferred from a macroscopical survey; but at the same time it showed a series of vital facts (proliferation of the epithelium and muscular fibres) of some importance. Without discussing these, it is certain, at any rate, that vascular grafts cannot be used to replace a segment of the ureter.

The fact that vascular grafts in vessels (arterial in veins and *vice versâ*) are generally satisfactory, while the same cannot be used to replace other hollow structures on account of their fibro-formative tendency, seemed to me in favour of the idea that a normal functional stimulus is a *conditio sine quâ non* for the life of vascular tissues. But, although the number of these experiments was not sufficient to be absolutely conclusive, the fact that every time I left a catheter in the ureter for several days I was able to observe in the graft evidences of regeneration which were lacking in most cases where no catheter was left *in situ*, counts for something. In these last cases I could only see retrogressive changes. Is it going too far to attribute them to the lack of the normal stimulus—the circulating blood, together with the presence of an abnormal stimulus—contact with the urine? The irritating action of the latter must have contributed to the destruction of the normal tissue of the vessel wall.

Given these considerations and the tendency in surgery to substitute defects of substance with similar tissues (cutaneous

grafts, bone and periosteal transplantations, grafts of whole joints, &c.), I thought of doing the same with the ureter—in other words, of performing ureteral auto-transplantations. The number of these experiments as yet made is too small to allow me to give a definite answer on the practical use of ureteral auto-transplantations, still I think I may call the results satisfactory. I hope to be able later to prove them on a larger scale and to confirm them with the histological examination.

Rome.

A CASE OF TRICUSPID REGURGITATION.

BY R. O. MOON, M.D. OXON., F.R.C.P. LOND.,
PHYSICIAN TO THE HOSPITAL FOR DISEASES OF THE HEART, SOHO-SQUARE, ETC.

THOUGH tricuspid regurgitation of organic origin is not particularly uncommon, yet it is so frequently accompanied by a lesion of the mitral or aortic valves or both that a case in which the endocarditis has affected the tricuspid valves only seems sufficiently rare to be worth recording.

A boy, aged 5 years, was admitted into the Hospital for Diseases of the Heart on May 22nd, 1911. There was nothing of importance in the family history. In infancy he had suffered from convulsions, but none after the first year. When 2 years old he had measles, and at 3 he suffered from diphtheria, the attack having been severe; the heart was said to be affected while in the fever hospital, and since then he had always seemed rather weak. Three months prior to admission he had seemed very tired and languid, at times being giddy, and in March he was in the Paddington Children's Hospital for "endocarditis," but remained rather a short time owing to the development of whooping-cough. On admission he seemed dull and apathetic, with a somewhat dusky appearance. The heart's apex beat was in the fifth space in the nipple line. Percussion showed distinct enlargement—dulness extending half an inch external to the nipple line and one-third of an inch to the right of the right border of the sternum; speaking generally, it was rather a flat area of dulness. A long, blowing, systolic murmur was heard all over the præcordial area and at the back, the pulmonary second sound was distinctly accentuated, and there was a cantering rhythm in the tricuspid area. I should mention that when seen in the out-patient department there was a systolic thrill internal to the apex, but this was not detected again while he was in the hospital. The liver was enlarged to within 2 inches of the umbilicus, but there was no tenderness, pain, or pulsation. The lungs presented nothing abnormal.

Soon after admission he complained a good deal of pain in the legs, and a moderate degree of œdema developed there. On June 8th there were dulness and deficient entry of air at the right base up to the angle of the scapula and in the right axilla; there was also considerable œdema in the lumbar region and most of all about the scrotum; in fact, general anasarca but no ascites. He was given diuretin gr. v., t.d.s., with very good results; the urine excreted during the few preceding days had averaged about 11 oz.; after taking diuretin a couple of days the excretion of urine increased considerably, while the œdema very largely disappeared, there being only some fluid at the bases of both lungs. On June 14th the temperature rose to 99·6° F., and on the 15th to 101·8°, returning to normal on the 20th. During this time there was an increase of the cardiac dulness upwards to the upper border of the third rib, and there was a triple sound suggestive of pericarditis in the third and fourth left spaces close to the sternum. On the 27th the œdema had again increased very much, particularly about the face, giving the patient a most typically renal aspect. However, though the urine was examined frequently, there was never more than a trace of albumin to be detected and no casts, so that it was quite clear that the case was purely cardiac. He was then given a mixture of tinct. digitalis, ♏ v.; spt. ætheris nitr., ♏ xv.; inf. scoparii ad ℥ℨ, every four hours, without producing much effect upon the œdema, which, however, was never so great as when it had first appeared. At this time a great trouble was sleeplessness and frequent shouting out at night, which disturbed the whole ward; he was never actually delirious; the shouting was loud and vigorous, but he always had something more or less intelligible to say when the nurse came to him. At first the condition was relieved by chloralamide (gr. x) with ammonium bromide (gr. v.), but it soon ceased to be effectual, even after increasing the dose. After that occasional doses of nepenthe (♏ v.) were given at night, which calmed him to some extent, but the restlessness and shouting at night remained very marked features of the case. On July 3rd the triple sound at the base of the heart was no longer audible, but the cantering sound in the tricuspid area was still very evident. Just at this time the weather became excessively hot and the child seemed obviously worse, though there was no change in the physical signs, the cardiac action being regular and fairly forcible to within 24 hours of the end, which came on July 8th.

The necropsy, which was performed by my colleague Dr. Russell Wells, showed the following: Chest: 3 oz. of fluid in each pleural cavity. Lungs quite healthy. Heart: weight, 6¼ oz.; a few drachms of fluid in the pericardial sac; slight recent pericarditis at the base. Right auricle: hypertrophied and dilated; markedly muscular. The wall had numerous muscular bands, giving it the appearance of a normal ventricle. Left auricle: practically normal except for a fatty deposit diffused over the whole surface under the lining membrane. Aortic, pulmonary, and mitral valves competent and normal. The tricuspid valve showed recent translucent vegetations on all the flaps of the valve, having the appearance of glue tinted with saffron. Kidneys: right 2¼ oz.; left 2½ oz.; healthy; marked fœtal lobulation. Liver: weight 21½ oz.; well-marked nutmeg appearance. On the pancreas and adjacent tissues there were some little specks of about the size of a pin's head, of a dead yellowish-white appearance, probably fatty necrosis.

Finding the mitral valve normal did certainly come to me as a surprise; the fact that the systolic murmur was plainly heard at the back is generally held to be against the purely tricuspid origin of it; then, again, the accentuated pulmonary second sound seemed to point to the mitral lesion, but in children no doubt one cannot attach much importance to these signs. On the other hand, there was no cough or dyspnœa, and the comparative absence of œdema from the lungs was in striking contrast to the general anasarca. The cantering sound in the tricuspid area which usually points to an abnormal blood pressure in the right ventricle ought, perhaps, to have given the clue to a correct diagnosis.

Green-street, W.

BACTERIAL INFECTION OF THE STOMACH WALL TREATED BY VACCINE-THERAPY.

BY FRANK KENNEDY CAHILL, F.R.C.S. IREL., D.P.H.

THE following case may be of interest to some of the readers of THE LANCET.

The patient, a man, aged 48 years, who consulted me in April, 1910, had been suffering for some 12 months from "foul breath." So great was the social inconvenience that it became almost impossible for him to carry on his business, involving, as it did, intercourse daily with a somewhat fastidious *clientèle*. In his efforts to seek relief he had consulted many physicians and specialists, among the latter a very eminent throat specialist, who declared that he was quite free from nasal trouble, and a dentist who declared that his denture was flawless. I made a very careful general examination and could discover no physical disability save a cystitis of long standing (45 years). This latter the patient informed me dated back to his childhood when he had been operated on for stone in the bladder at the age of 3 years. A stricture followed the operation, and as long as the patient could remember his urinary stream had been small. There were no symptoms of stone at the time of examination. On passing a No. 4 catheter about two ounces of "residual" urine came away; this was found to contain numerous pus cells, and on bacteriological examination yielded a growth of pure streptococcus.

The patient did not complain of "indigestion" (that much abused term). He had a hearty appetite, but eating or starving he had his "foul breath." The stomach emptied itself in normal time. Gastric chemistry was normal. Having secured specimens from his stomach, the cultivation yielded streptococcus and bacillus coli. There was a possibility that the streptococcus found in the stomach came from

the nose or was due to pyorrhœa alveolaris, but the opinions of the above-mentioned specialists would seem to negative this. So the patient would seem to be suffering from a bacterial infection of the stomach, and it is interesting to note that the streptococcus was found in the bladder also.

I had a "vaccine" prepared consisting of a streptococcus from the urine and a bacillus coli from the stomach in the following proportions representing millions:—

	No. 1.	No. 2.	No. 3.	No. 4.
Streptococcus	5	5	10	20
Bacillus coli...	5	10	15	20

I made the first injection on April 19th, and repeated the injection at intervals of one week, giving in all four doses. By the middle of May the "foul breath" had completely disappeared, and has not returned up to the present, now 17 months afterwards.

The case presents many features of extreme interest to the stomach specialist, but in the course of a short communication I shall refer to one only. Hitherto infection of the stomach walls by the bacillus coli has been noted by gastro-anterologists in obstruction of the pylorus due to malignant disease only, and I have been unable to find in the literature any record of a case in which, though the gastric motility was normal, a bacterial infection of the stomach mucosa by this organism had occurred.

The cystitis in this patient improved, but did not, of course, disappear, and the patient was quite content with the cure of his "foul breath" which, had it continued, would have necessitated his retirement from business. (He has now had the urethral stricture dilated and all pus has disappeared from his urine.)

Dublin.

Medical Societies.

ROYAL SOCIETY OF MEDICINE.

SURGICAL SECTION.

Caries of Frontal Bone.

A MEETING of this section was held on Nov. 14th, with Mr. CLINTON T. DENT in the chair.

Dr. W. RINGROSE GORE read a paper entitled, "A Case of Caries of Frontal Bone and Intracranial Abscess due to Bacillus Typhosus 11 Years after Attack of Typhoid." The important point arose as to what could be done to prevent these cases of typhoid bone infection. Although not usually fatal in themselves, they might become so from their situation; for instance, an abscess might rupture through the dura mater, and a case of fatal peritonitis had been recorded following a typhoid abscess of the lower end of the sternum. It might be held that patients suffering from this condition were typhoid carriers, the habitat of the bacilli being in the walls of the gall-bladder where they could not be reached by medication or vaccines as they were shut off from the circulation, but from which situation they could occasionally infect the blood-stream. Removal of the gall-bladder had been performed, but the operation in these cases appeared to be a dangerous one. The other alternative appeared to be to try by successive courses of vaccine to create a blood immunity.

Mr. H. BETHAM ROBINSON read a paper on a case of Extra-peritoneal Rupture of the Bladder without Fracture of the Pelvis, and the meeting concluded with a paper by Mr. L. A. DUNN on a case of Retrograde Enteric Intussusception.

CLINICAL SECTION.

Exhibition of Cases.

A REPORT of Major Leonard Rogers's paper on the treatment of cholera among Europeans at Palermo, read at a meeting of this section on Nov. 10th, and the discussion thereon, were published in THE LANCET of Nov. 18th. At the same meeting many cases were exhibited, details of which are given below.

Dr. HERBERT P. HAWKINS showed a case of Enlarged Spleen with Recurring Hæmatemesis. The patient was a girl aged 9. She was said to have been pale and delicate from her birth. At the age of 4 she suddenly vomited half a pint of blood without pain and without any previous symptoms pointing to gastric disease. She was admitted into the Belgrave Hospital for Children and apparently soon recovered. At the age of 6 she had a second hæmatemesis, equally sudden, and she was said to have vomited a pint of blood. This was followed by melæna for several days. It was not certain, but it was probable, that this attack was accompanied by some pain in the epigastrium. She recovered in about six weeks. Early in 1910, at the age of 8, she began to have frequent attacks of pain "in the stomach and around the heart." Crops of small purpuric spots appeared on the chest, and the mother stated that she was easily bruised. On one occasion there was epistaxis. She was becoming pale and weak, and on admission into St. Thomas's Hospital in April of that year melæna was observed on several days in succession. The spleen projected 2½ inches below the costal margin and it was indurated. Red cells were 2,425,000, with a colour index of 0·7; leucocytes were 3700. Three normoblasts and five megaloblasts were seen. Polychromatophilia was marked. The coagulation time was 2·5 seconds. There was no other sign of disease beyond hæmic murmurs. After a month of treatment with arsenic the red cells were 3,437,000, with a colour index of 0·6. She remained fairly well, though always pale, till July 27th, 1911, when she suddenly vomited a pint of blood. For six weeks before this she had complained from time to time of abdominal pain just above the umbilicus. A few hours later there was further hæmatemesis, and melæna followed for several days. The spleen was enlarged and hard as before. Red cells were 2,200,000, colour index 0·5, leucocytes 2980, with no change in relative proportions; two normoblasts, but no megaloblasts seen. For 14 days there was pyrexia, maxima being 101° to 102° F. Under the use of arsenic the condition of the blood had slowly improved. The red cell count was now 4,328,000, colour index 0·8, leucocytes 3600. She was fairly well; she took food freely without any discomfort, but she was not gaining weight. The liver was just palpable, but it was within the limits of health. The pulse was seldom under 100, and the urine occasionally contained a trace of albumin. The spleen moved freely with respiration, and the question was whether the condition of the blood and the history of the illness justified its excision.

Dr. W. ESSEX WYNTER and Mr. JOHN MURRAY showed a case of Toxic Cirrhosis, with Spleno-portal Thrombosis and Ascites (Banti's Disease), treated by femoral drainage. The patient was a female aged 44. Eight years back, during pregnancy, while moving some furniture, she felt something give way in the left hypochondrium. Subsequent to delivery a lump was felt in this situation, and three months afterwards there was enlargement of the abdomen; three years ago, in similar circumstances, the abdomen was again distended. For three months before admission this distension had been increasing so as to cause difficulty in walking and breathing, with pain when lying on the left side, and œdema of legs. Diarrhœa had been constant. There was well-marked ascites, and the spleen descended to the level of the umbilicus. The diaphragm was pushed up, displacing the heart and causing some collapse of the bases of the lungs. The liver was small. On March 10th, 1911, 21 pints of serum were removed by paracentesis. It had a specific gravity of 1018 and contained 40 gr. per litre of coagulable protein and traces of mucin, but no reducing substance or cells. On March 24th, 28 pints were removed by paracentesis. On the 28th Mr. Murray opened the femoral ring through a semilunar incision in Scarpa's triangle. A small opening was made above Poupart's ligament to enable the peritoneum to be pushed through. This was then divided and stitched to the sides of the ring. A considerable amount of fluid escaped, but the abdomen was not completely emptied. The incisions were closely sutured, and healed in a few days. On account of the rapid formation of fluid causing tension in the femoral wound, paracentesis was twice performed in the surgical ward—May 5th, 23 pints, 16 oz.; May 23rd, 10 pints, 12 oz. She was discharged on May 26th. During September, owing to distension of the upper femoral region by gravitation of fluid, the scar again gave way, leaking slightly; owing to apprehension of possible peritoneal sepsis the patient was readmitted and fitted with an elastic support. While lying up the ascites returned and 16 pints were removed on

Sept. 29th before leaving. This was the first tapping since May 23rd (four months).

Dr. WYNTER also showed a male patient, aged 54 years, who was exhibited to the Fellows on Dec. 13th, 1907, as an example of Ascites due to Cirrhosis Hepatis, cured by permanent drainage through the femoral ring. This man, during the four years which had elapsed since the operation, had had no further ascites. There was slight yielding of the abdominal wall at the site of the scar, but this had caused no inconvenience.

Dr. WYNTER also showed a male patient, aged 50 years, who was operated upon for Ascites associated with Cirrhosis of the Liver in 1908, an additional precaution against premature closure of the femoral opening being the insertion of a decalcified bone tube. The patient had been at work for three years feeling quite well. At the present time there was some free fluid in the peritoneal cavity, and a dilated tortuous saphena vein indicated some obstruction at the site of operation.

Dr. N. S. FINZI showed a case of a large Malignant Growth of the Cheek which had disappeared under radium treatment. The patient was a female aged 48 years. She had been previously shown at the Laryngological Section in June. Since the age of 7 she had had a soft and painless swelling growing from the mucous membrane of the cheek. In May, 1910, this became painful, and a month or so afterwards enlarged, and continued to increase in size until it was removed widely in November, 1910. All seemed satisfactory until Dec. 19th, when there was a sudden rapid swelling in the cheek. This increased rapidly and was incised a few days later and a drop or two of thin pus obtained; nevertheless, the growth continued to increase rapidly. Early in the year there was an enormous swelling in the cheek of about the size of a Jaffa orange, slightly moveable, but with considerable œdema round it. At one spot it seemed on the point of bursting externally, as there was a small fluctuating area covered by extremely thin skin. No definite glands were felt, but the œdema, especially in the pre-auricular region, might have obscured these. From Jan. 3rd to 7th Dr. Finzi applied radium bromide, 105 mgr., in two tubes, one surrounded by platinum 1½ mm. thick, and the other by lead the same thickness, inside the tumour for 69 hours, and on lint outside the skin in two situations for 12 hours each. On Feb. 2nd the tumour had shrunk considerably, but there was a pre-auricular gland to be felt. This was excised and 100 mgr. of radium bromide with a filter of 2·5 mm. platinum was inserted into the wound for nine hours. On Feb. 23rd there were still a few nodules in the cheek; 205 mgr. of radium bromide were applied on lint externally for 30 hours and internally for nine hours. On May 11th prophylactic treatment was given with 205 mgr. radium bromide 34 hours in all. The patient now seemed quite well and the scar had gradually and continuously softened. Dr. Finzi said that it might be remarked that there was never any sign of sloughing of the growth after the treatment, but it simply gradually became absorbed, leaving in its place a depression and a scar. Sections were shown of the original growth and of the gland which was removed. The nature of the growth was either that of a glandular carcinoma or of an endothelioma.

Dr. REGINALD H. MILLER showed a case of Hæmochromatosis with Diabetes. The patient was a man, aged 38, who had noticed darkening of the skin for 18 years, but remained in good health until five months ago, when he began to waste and to suffer from thirst. The pigmentation began on the left shoulder, where the patient carried his bag of tools. It was now universal and was best marked on the face (which was leaden-hued), forearms, and legs. A recent scar on the skin was deeply pigmented. No part of the skin was normal in colour. In addition to the bronzing there were innumerable small darker spots resembling freckles. The scalp was pigmented, but not so deeply as the face. Axillary hair had disappeared, but pubic hair was present. The urine contained much sugar (6 to 10 per cent.) and acetone; from 100 to 150 ounces were passed daily. The glycosuria was little controlled by diet. The blood count shows—red cells, 4,700,000; white cells, 7900; hæmoglobin, 92 per cent. The mononuclear cells were proportionately increased. The liver was enlarged to the umbilical level, firm, and not tender. There were no symptoms of hepatic cirrhosis, and the patient had only suffered from very occasional attacks of mild indigestion throughout the course of the illness.

Mr. W. SAMPSON HANDLEY showed a case of Ivory Exostosis of the Frontal Sinus. The patient was a man, aged 35, who had noticed a lump growing on the inner side of his right eye for about three years. It had not given him any pain. At the operation an incision was made along the inner half of the eyebrow, inclining downwards towards the inner canthus. The exostosis was continuous with the frontal bone at the inner wall of the sinus, and here its base was divided with a chisel and removed. There was free bleeding, and air bubbled up from the bottom of the cavity, showing that it communicated with the nose. The cavity was packed and allowed to heal by granulation. The patient had suffered from bilateral nasal polypi for some years prior to the development of the osteoma. Five years ago the patient had three "black eyes" on the right side in quick succession, and thought that there had been some swelling ever since.—Mr. T. JEFFERSON FAULDER described a case and exhibited the exostosis removed.

Dr. NORMAN DALTON showed a case of Malignant Anæmia, Hæmolytic Type. The patient was a female, aged 59, who was admitted to King's College Hospital on Sept. 28th, 1907. The case seemed to be one of those rare instances of gastric cancer in which hæmolysis occurs, thus simulating the true pernicious anæmia. By Oct. 7th she seemed to be dying, was extremely prostrate and delirious, with a glazed tongue. She was now put on bismuth mixture and gradually improved. By Oct. 29th the red discs had gone up to 1,028,000, the colour index being 2. Vomiting ceased. She was able to leave the hospital on Nov. 22nd, 1907, greatly improved. A lump of doubtful nature noticed in September could not now be felt in the epigastrium. She was re-admitted on May 4th, 1908. She was extremely prostrate, vomiting, œdema of the feet, retinal hæmorrhages, &c. The epigastric lump could again be felt. She was put on liq. arsenicalis, ♏ iv., three times a day, but became worse, the vomiting being constant and delirium setting in. The red discs were 624,000, the colour index being 1·5; there was great leucopenia with relative excess of lymphocytes, megaloblasts, normoblasts. She was put on bismuth mixture instead of arsenic, and improved. On June 10th the red discs were 1,764,000, and the colour index was 1·8; there were no nucleated red discs. The spleen had never been found enlarged. She was well enough to leave the hospital on June 13th, and for two years she was able to get about at home and to do some house work. At Christmas, 1910, the asthenia and vomiting recurred, and she was readmitted to the hospital on July 17th, 1911. The red discs were 976,000, but the colour index was now just below normal. Abnormal red corpuscles were found. The abdomen was now full with a little ascites, and the liver and (?) the spleen became enlarged. She was very ill for a few days—viz., vomiting, glazed tongue, delirium, &c.—but improved under bismuth. By August 29th the red discs had gone up to 2,092,000, the colour index being 1, and no abnormal reds being found. On Sept. 21st the red discs were 3,280,000, and she is now really very well. The points about the case were that the toxins which cause the hæmolysis appeared to come from the stomach, because when she was ill the vomiting was such a prominent symptom, and bismuth brought her round, while arsenic made her worse. When, however, the gastric symptoms ceased she could take arsenic with advantage. It would seem as if the arsenic could not exert a favourable influence until the gastric irritation had been subdued. The original idea of cancer of the stomach must be abandoned after four years.

Dr. LEONARD WILLIAMS showed a case of Nocturnal Enuresis treated with Thyroid Gland. This patient's case was reported in THE LANCET of May 1st, 1909, in an article entitled "Adenoids, Nocturnal Incontinence, and the Thyroid Gland," as follows: "The patient, a girl, aged 11 years, was first seen on Feb. 2nd, 1909. She had wetted her bed every night since birth. For the last few years she had, in consequence, slept on straw. She was dull and apathetic, but not stupid. She was thirsty but her appetite was poor. The patient was not undersized and her weight was 5 st. 1 lb. The tonsils were somewhat enlarged, but there were no adenoids or nasal obstruction. The temperature was 99° F. in the mouth. One and a half grains of thyroid extract, three times a day, were ordered. Feb. 9th: The patient had missed wetting her bed for the last three nights—the first in her life. The same dose of thyroid extract was ordered. 16th: On three successive nights the bed had not been wetted. The

dose of thyroid extract was increased to 2½ grains three times a day. 23rd: No enuresis had occurred during the week. Thyroid extract was ordered as before. March 2nd: No enuresis. 9th: No enuresis. 12th: No enuresis." On March 12th, although there had been no enuresis, the patient complained of pain in the left arm, and on examination the elbow proved to be swollen and tender. She did not come to the hospital again until March 26th, and was consequently without medicine for a week. The bed had been wetted once, the night before her return. The dose of thyroid was reduced, and a mixture was ordered containing calcium iodide and arsenic. On April 2nd there had been no enuresis; the thyroid was stopped, but the mixture continued. On April 16th the bed had been wetted four times in 14 days; the thyroid was repeated. April 23rd: Enuresis had occurred once. April 30th: No enuresis. The patient remained quite free from enuresis from April 30th to August 11th. She was coming regularly to the hospital during that time, and was taking 1½ gr. of thyroid extract. The notes show that during that period there had been complaints of pains in the joints, especially the elbows and knees. From August 11th to Oct. 6th she remained away from the hospital. Having been given a supply sufficient for a month only, she had thus been without treatment for more than three weeks. On reporting herself at the end of that period she stated that she had wetted her bed three times during the previous week and once during the current week. From this date (Oct. 6th, 1909), under regular thyroid medication, there was, up to March 8th, 1910, no enuresis. She then disappeared from the out-patient room. During this time there had been several complaints of joint troubles. Early in January, 1911, I found her in the wards, under the care of Dr. W. Langdon Brown, who had been treating her for a typical attack of acute articular rheumatism, which had affected her mitral valve. There had been no urinary difficulties in the course of the attack, but the enuresis returned during convalescence. It was controlled, though tardily, by thyroid medication, continuing with considerable remissions until April 25th. On May 26th, 1911, she came to the hospital with a definite attack of left-sided hemichorea, which rapidly yielded to large doses of arsenic. In August she began menstruating; the periods have been regular and painless, but unduly profuse. Nov. 7th: involuntary movements returned last week. The mother of the patient was interesting as a case of pseudo-obesity, who was unable to tolerate the smallest dose of thyroid.

Mr. V. WARREN LOW showed a case of Lipoma of the Tongue. The patient was a man, aged 59 years, who had noticed the swelling on his tongue for eight years. It had been of gradual onset and had increased in size slowly. There was no pain, and only inconvenience owing to the size of the organ. There was a lobulated tumour on the right lateral aspect of the tongue extending for two-thirds of its length. The mucous membrane over the tumour was smooth, and through it could be distinctly seen the underlying lobules of fat. There was no infiltration of the tongue, which could be readily and easily protruded.

MEDICAL SOCIETY OF LONDON.

Differential Diagnosis of Syphilis and Parasyphilis of the Nervous System.

MEETINGS of this society were held on Nov. 13th and 20th, Dr. J. MITCHELL BRUCE being in the chair.

Dr. F. W. MOTT opened a discussion on the Differential Diagnosis of Syphilis and Parasyphilis of the Nervous System, which was published in last week's issue of THE LANCET, p. 1392.

Sir DAVID FERRIER said that parasyphilitic affections of the nervous system—by which term he understood tabetic affections, whether spinal (locomotor ataxy), cerebral (general paralysis), or cerebro-spinal—formed a separate class, and when all or most of the cardinal symptoms were present were readily distinguishable from syphilitic affections proper. The term parasyphilis had a recognised significance, and every day strengthened the evidence that all tabetic affections were primarily of syphilitic origin, and that whatever else might be coöperative syphilis, hereditary or acquired, was a *sine quâ non* in their causation. But while parasyphilitic affections, when fully developed, were easily distinguishable from cerebro-spinal syphilis, doubts might be entertained by even the most experienced observers when the affections were in their incipient stage or when the manifestations were imperfect, irregular, or complicated by other symptoms due to syphilis or not, as the case might be. If he were to specify one symptom or sign above all others characteristic or pathognomonic of parasyphilis, he would without hesitation say the Argyll Robertson pupil, or condition termed reflex iridoplegia. That was practically always a sign of parasyphilis. Occasionally all symptoms might be so equivocal that they gladly availed themselves of the valuable aids to diagnosis which had been in recent times added to their resources in biochemical and cytological examination of the blood and cerebro-spinal fluid. Whatever might be the correct interpretation of the Wassermann reaction—and he thought the balance of evidence was against it being a specific immune reaction—there was, he thought, little doubt that, in its clinical setting, it was absolutely pathognomonic of antecedent syphilitic infection. It was, however, as Much termed it, a constitutional and not a symptomatic reaction. In cerebro-spinal syphilis it was obtained only in the serum, whereas in general paralysis it occurred with equal frequency in the cerebro-spinal fluid, and with almost equal frequency in that of spinal tabes. Those facts were of inestimable importance, and a positive Wassermann reaction of the cerebro-spinal fluid in a doubtful case would be quite sufficient to dispel all doubts as to the true nature of the case. There was one point of difference between general paralysis and cortical syphilis, which he had been in the habit of demonstrating at his hospital clinics for a great many years. It was that he had never found a general paralytic, at whatever stage of his disease, complain of or evince signs of pain on deep pressure or percussion on any part of his head; whereas in cortical syphilis, even when the patient had made no complaint of spontaneous headache, it was practically the invariable rule that pain, often obviously severe, could be elicited by deep pressure over the seat of lesion.

Dr. G. H. SAVAGE said that years ago he had been told that he was teaching wrongly when he said that general paralytics rarely complained of tenderness about the head or of headaches. He could only answer that it was very exceptional for him to meet with such a case. It was very common to meet people who were suffering from parasyphilitic trouble and other similar troubles, and who had headaches. Cases of parasyphilis and cerebral syphilis almost invariably slept badly. But the general paralytic, except in the stage of maniacal excitement, often slept very well indeed and did not complain of sleeplessness.

Dr. RISIEN RUSSELL said that he was in complete accord with Dr. Mott in regard to the failure of anti-syphilitic treatment in general paralysis, but he was fully convinced of its efficacy in tabes, and considered that no patient in the early stages of that disease should be allowed to go untreated by mercury administered by inunction or injection. Dr. Russell was glad that emphasis had been laid on the importance of differentiating neurasthenia from the affections that were under discussion. While failure of the pupil to react to light was all-important as proving the organic nature of the disease, the same could not be said of mere inequality of the pupils, for it was no uncommon thing to meet with unequal pupils in neurasthenia without its meaning that an organic basis existed to account for the neurasthenic symptoms. That the headache of brain syphilis was usually more severe than that ordinarily met with in neurasthenia there could be no doubt, but it could not be said that, although other cephalic sensations occurred in neurasthenia, those did not include headache, for the reason that true headache was a common symptom in the affection, and it might even be characterised as severe in some cases. He could most cordially endorse all that had been said in regard to the value of the Wassermann test and the examination of the cerebro-spinal fluid. Contrary to what he understood Dr. Mott to say, however, he had met with cases in which the Wassermann reaction from the cerebro-spinal fluid had been said to be positive when the blood had given a negative reaction. He had seen both ankle clonus and the extensor type of plantar reflex sufficiently often in general paralysis to rob those signs of the value with which they had been credited in the diagnosis of brain syphilis as opposed to general

paralysis. Excepting in cases of tabes-paralysis he was not in the habit of associating oculo-motor paralysis or gross paralysis of any cranial nerve with general paralysis, but had always regarded any such palsies as in favour of brain syphilis in contra-distinction to general paralysis. It was gratifying to hear such a definite pronouncement in regard to the value of the Argyll Robertson pupil in support of the parasyphilitic affections, for it accorded with his own experience.

Dr. E. FARQUHAR BUZZARD said that he believed he was correct in saying that Dr. Mott regarded parasyphilis as an abiotrophic process which, although it followed syphilis, was not in itself syphilitic, and did not depend for its progress upon the activity of the syphilitic virus. He entirely agreed with Dr. Mott that the pathological process underlying tabes was not a gross structural change comparable with that which they saw in the inflammatory lesions of syphilis, but he could not help looking upon it as one which was due to an active intoxication rather than as the expression of a primary neuronic decay. They were told—and he agreed with the statement—that the majority of tabetics gave a positive serum reaction. At the same time, Dr. Mott stated that the latter was an indication that the syphilitic virus was still active. If both those observations were reliable, they were certainly reconcilable with the view that tabes was the result of an active toxic process. On the whole, he found it difficult to regard the irritative phenomena of tabes as due to the degeneration of neurons prior to their death and loss of function. Many of them could be modified or averted by energetic antisyphilitic treatment, and in his opinion were the direct result of an active toxic agent. After all, the so-called parasyphilitic diseases were really the only syphilitic diseases of the nervous system; cerebro-spinal syphilis was not syphilis of the nervous system, but syphilis of its supporting and nutrient tissues. He agreed with all that Dr. Mott had said with regard to the value of the Wassermann reaction of the blood and of the cerebro-spinal fluid, but he had learnt to be careful not to attach too much importance to a negative result. They had heard much of the value of the Wassermann reaction in tabes. They had heard, too, of the Argyll Robertson pupil, of the absent tendon jerks, of Romberg's sign, and so on, but the ordinary physician, like himself (Dr. Buzzard), needed to give an opinion without constant resort to laboratory tests, and he could not shrink from diagnosing tabes sometimes even when Argyll Robertson pupils were absent or knee-jerks were present. Too little attention was paid habitually to the sensory phenomena of tabes, which on the whole were as reliable a guide as any other to a correct conclusion if their characteristics were appreciated. In view of the test-tube tendencies of the present time he did not think one could urge too strongly the importance of teaching medical students all there was to know about ordinary bedside methods of examination.

Mr. A. FLEMING said that the uses of the Wassermann reaction in nervous diseases were: (1) by examination of the serum to see if the patient had syphilis; (2) by examination of the spinal fluid to detect parasyphilitic affections, and especially general paralysis; and (3) to reassure the patient who had been cured, and so remove the dread of future trouble.

Major H. C. FRENCH, R.A.M.C., wrote that the number of brain and spinal syphilis cases in the army was very small in comparison with the large number of cases of syphilis. In his experience it was well under 3 per cent. as regards mixed methods, and not more than 1 or 2 per cent. in cases thoroughly treated by mercurial inunction and baths in the primary and early secondary stages. Two facts contributed to the relative infrequency in the army: first, the judicious early use of mercury; secondly, the fact that soldiers left the service, as a rule, under 40 years of age. In cases of cerebral or spinal syphilis which he had met with in the army it was the rule for them to have either been overlooked and entirely untreated in the initial stages of the disease, or they had frequently received such scanty treatment as to be scarcely worth the name. Dr. Lévy-Bing had informed him (Major French) a month ago in Paris that he had given over 500 intravenous and intramuscular injections of salvarsan. He had never succeeded in aborting syphilis even after four weekly doses in the primary stage. He found that the Wassermann reaction became negative in many cases, but it was the rule for it to become positive within two months. After six or seven months he frequently saw nervous manifestations develop, and he mentioned two recent cases of meningitis, facial paralysis, and extensive skin eruptions. The general opinion was that intravenous injections of salvarsan were therapeutically better than intramuscular, but that mercury should be administered for three years was the opinion commonly held by those who had extensively tried both drugs.

Mr. HUGH W. BAYLY said that he wished to place before them the results that he had obtained with the Wassermann reaction during the last year at the National Hospital, Queen-square. He had examined 11 cerebro-spinal fluids, and of those four were positive. He saw, however, from Dr. Candler's interesting paper in THE LANCET of Nov. 11th that he had been using too little cerebro-spinal fluid which might account for his low proportion of positives. With regard to the blood serum, of 33 cases diagnosed as tabes 13 were strongly positive, 9 positive, 1 doubtful, and 10 negative. That gave 70 per cent. of positives. Of 5 cases of doubtful diagnosis in which tabes was queried 4 were negative and only 1 positive. Of 17 cases diagnosed as general paralysis of the insane, 12 were strongly positive, 3 positive, and 2 negative = 88 per cent. positive. Of 8 cases in which general paralysis of the insane was queried, but not actually diagnosed, 3 were positive and 5 negative. Of 21 cases in which cerebral tumour was suspected only 3 (14 per cent.) were positive reactions. Of 18 cases of paraplegia examined only 4 (22 per cent.) were positive. Of 11 cases of hemiplegia only 3 (27 per cent.) were positive. Of 13 cases of pachymeningitis only 4 were positive. Of 10 cases of disseminated sclerosis 2 were positive and 8 negative. Eight cases of epilepsy and 4 cases diagnosed as cerebral thrombosis were all negative. Of 3 cases of primary optic atrophy examined, all three were positive. Purves Stewart had stated that the lymphocytosis of tabes and general paralysis of the insane was more marked than in any other form of organic nervous disease. Syphilis by itself, unless there be an active syphilitic lesion of the central nervous system, produced little or no excess of lymphocytes in the cerebro-spinal fluid. F. Plaut says that cellular increase may be found in secondary or tertiary stages (even though only latent) without any syphilitic manifestation in the central nervous system. The number of lymphocytes may reach a great height, up to 400, without producing a positive Wassermann reaction in the cerebro-spinal fluid, and *vice versâ* the intensity of the Wassermann reaction of cerebro-spinal fluid is in no relation to the cell contents, one case with a very strong Wassermann reaction showing 17 cells, and another with a very weak Wassermann showing 245 per cubic millimetre. There was also no relation between the strength of the blood Wassermann and the cellular content of the cerebro-spinal fluid. Dr. Mott had obtained a positive Wassermann reaction in every case of tabes and general paralysis of the insane in the blood, and considered that the amount of lymphocytosis in the cerebro-spinal fluid was an index of the activity of the disease. Dr. Mott found that in tabes and general paralysis of the insane antisyphilitic treatment had no effect on the lymphocytosis, so he (Mr. Bayly) imagined that it would only be in syphilitic meningitis that that effect was produced. Candler considered that an excess of lymphocytoses in the cerebro-spinal fluid indicated organic disease, but not necessarily either syphilis or parasyphilis. It was difficult to bring the observations of those four authorities into line. He (Mr. Bayly) would ask Dr. Mott whether he would consider a diminishing Wassermann in the blood or a diminishing lymphocyte content in the cerebro-spinal fluid the more valuable indication of improvement and reaction to treatment.

Dr. WILFRED HARRIS said he had hoped that Dr. Mott would have said something about a special neuro-toxin in connexion with the development of general paralysis and tabes; there were so many instances of individuals being infected from the same source and having general paralysis or tabes. There was one instance of as many as seven people being infected by one blow-pipe for blowing gas, and five developing general paralysis of the insane or tabes. The facts concerning conjugal tabes and conjugal general paralysis pointed in the same direction. With regard to injury, he had twice seen general paralysis follow so closely upon injury of the head that he was inclined to regard it as a determining factor in the disease.

Lieutenant-Colonel A. DE C. SCANLAN, R.A.M.C. (retired),

expressed his entire disagreement with the view of Sir David Ferrier that syphilis was a *sine quâ non* in tabes; he differed also from Dr. Mott that syphilis was practically the only cause of that disease. He had seen a considerable amount of syphilis in the army, but he had seen only one case of tabes in the army, though several cases had come under his notice outside the army, and in those he had found no signs of syphilis whatever. His opinion was that tabes was due to a toxæmia and that syphilis was only one of the causative factors.

Dr. H. CORNER remarked that when he was at Bethlem Hospital many years ago he took a great deal of interest in the question of general paralysis of the insane in its connexion with syphilis, and he would like to know whether Dr. Mott looked upon syphilis as the only cause of general paralysis. His opinion was that something beyond syphilis was required in order to produce general paralysis, and that syphilis was a predisposing cause producing a low form of inflammation throughout the body, and there was a tendency to proliferation of cells and a tendency to a cirrhotic condition later on. The progressive character of general paralysis and the non-progressive character of other syphilitic lesions was a fact which needed explanation.

Dr. MOTT, in reply, thanked all those who had taken part in the discussion. He said that many cases of tabes under his own care had benefited a good deal by mercurial treatment. He was doubtful whether mercury did much good for general paralysis of the insane. Many blood examinations of the cerebro-spinal fluid and of the blood had been done at Claybury, and invariably in general paralysis there was a reaction with the blood serum when there was a reaction in the cerebro-spinal fluid. But he had heard of cases in which the cerebro-spinal fluid gave the reaction and the blood did not, and therefore he would not be too dogmatic on the point. He did not consider that the Wassermann reaction should be looked upon as absolutely infallible. He did not say one could not get a positive Wassermann in cerebral syphilis, but if the cerebro-spinal fluid gave a positive reaction it was 5 to 1 that it was parasyphilitic and not syphilitic.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Some Aspects of High Blood Pressure.—Exhibition of Cases and Specimens.

A MEETING of this society was held on Nov. 10th, Mr. H. LITTLEWOOD, the President, being in the chair.

Dr. A. MANTLE read a paper on Some Aspects of High Blood Pressure Requiring Special Consideration in Treatment. He said: It is an interesting fact that it is to two members of this society, Dr. George Oliver and Sir T. Clifford Allbutt, the profession owe so much for pressing home the importance of blood-pressure observations being made as they now are in almost all consulting rooms and medical wards. In normal man the average level of blood pressure is maintained with great constancy, and of all the parts of the vascular system the abdominal vessels innervated by the splanchnic nerves have by far the greatest effect on general blood pressure, and Janeway says that an abnormally high pressure cannot exist permanently unless there has been some damage to the regulating power of the visceral circulation. The most common source of the poison disturbing the visceral circulation is from the alimentary canal when the toxic products of decomposition, the result of over-indulgence, become absorbed. Lead and alcohol, which also bring about a disturbance of metabolism, act in the same way, and so probably does sepsis. The result of these disturbances is the absorption of pressure toxins and a rise in the blood pressure. The influence of prolonged worry through the nervous system in bringing about visceral circulatory changes, as also that of external temperature—exposure—in the hypersensitive, is great, and may lead to high blood pressure and arterio-sclerosis if the defences of the body are found weak, particularly those of the liver and kidney. High blood pressure may be *temporarily* high or *permanently* so. A temporarily high pressure may be due to a disordered metabolism, and more often it is met with in the neurotic subject, and too much attention should not be paid to such observations. It is the permanently high pressure which gives us anxiety, and the effects of such may be very far-reaching, for the increased resistance in the vessels and left ventricle which has to be overcome soon leads to a thickening of the muscular fibre and eventually to fibrotic changes. Arterio-sclerosis when developed may not affect the whole arterial tree, but may be local. In the latter cases with an unequal distribution of sclerosis there may be no appreciable rise in blood pressure, although considerable disease is very apparent in some of the superficial vessels. Hyperpiesis is a name given by Sir T. Clifford Allbutt to a class of case in which we have a high blood pressure with or without cardiac hypertrophy and symptoms (possibly covering years) referable to a functional disturbance of the liver and bowels. It occurs in the middle-aged, who show no symptoms of arterio-sclerosis and with no evidence of nephritis. Some of these cases get better if detected early. They are frequently associated with chronic constipation and are due to toxins absorbed from the bowel having pressure properties. The treatment of super-pressure has been too much confined to drugs of the vaso-dilator type and to iodides. If there is a loss of balance between the peripheral and splanchnic circulations we want to restore it and not allow too much blood in the organs of the splanchnic area with too little in the skin reservoir, for this must mean congestion of the viscera involved. This can be relieved by judicious purgation, and best probably by mercury in the form of calomel or blue pill and saline purgatives. The skin must also be kept active by attracting blood to the systemic periphery, and no doubt the *régime* and balneological treatment of a good spa are very helpful in cases of supernormal pressure. It being proved that purin bodies and alcohol keep up the pressure, a very regulated intake must be insisted upon with a diminution of red meats and salt. Supernormal pressure is not in itself a primary condition, and we must look for the causes of it. A word of warning must be given to the enthusiast who, seeing the mercury of the manometer reach the top of the tube, determines to have it down at any cost, for he forgets that owing to the gradual increase of blood pressure each individual readjusts his cardio-vascular physiology to compensate this, and the physiological limit is not now 130 to 140 mm. Hg, but may be 220 mm., and to reduce pressure below this new physiological limit is not only not indicated but bad treatment. In other cases it is noticed that with the development of symptoms from the heart the pressure falls, and then it is our duty to raise it with digitalis or strophanthus, and vaso-dilators must on no account be given. It is important to remember that high blood pressure does not mean in all cases arterio-sclerosis and nephritis, but is a condition which is not infrequently amenable to treatment.

Dr. J. H. FRYER showed a man suffering from Diffuse Scleroderma. The symptoms had started some 12 months before with arthritic manifestations, and the condition was diagnosed by several observers as a rheumatoid one. The arthritic pains were due to the thickening and contraction of the tissues round the joints. So marked was this that fissuring of the skin occurred over many of the smaller joints of the hand. There was also much pigmentation. The condition was gradually passing off, apparently having been uninfluenced by any form of treatment.

Mr. H. COLLINSON showed a girl from whom a large Retro-peritoneal Tumour had been removed. The tumour occupied the whole of the left side of the abdomen and the third part of the duodenum passed across it. In removing the tumour the duodenum was torn, and owing to difficulty in repairing the rent three inches of the duodenum were removed, the proximal end was closed completely, and the jejunum anastomosed with the stomach. The patient had recovered without any complication and was taking ordinary food without inconvenience.

Dr. T. WARDROP GRIFFITH referred to some cases that had recently been under his care which presented the physical sign known as the "third sound" of the heart. The association of this with the presence of an extra wave in the jugular pulse was discussed, and tracings were shown from the cases in which this wave was well seen. The extra wave in question was that described by Hirschfelder and by A. G. Gibson, and followed on the fall of the so-called ventricular wave of Mackenzie. The summit of this ventricular wave was usually regarded as indicating the end of ventricular systole and the consequent opening of the auriculo-ventricular valves, and the extra wave had been regarded as being due to the initial rush of blood into the

ventricles leading to a temporary closure of the auriculo-ventricular valves, a closure which it was thought was the cause of the extra sound in question. It was believed that the extra sound was due to the closure of the mitral rather than the tricuspid valve, for the blood pressure attained to a much higher level in the left auricle than in the right, being driven into the left by the contraction of the right ventricle. The extra wave in the jugular pulse was, of course, an indication of what was going on in the right side of the heart, and indicated a temporary closure of the tricuspid valve during the early part of the ventricular diastole just after the initial rush of the blood from the auricle, and it might be that this closure contributed to the sound under discussion. The importance of recognising the sound was commented on, and especially its distinction, which was sometimes difficult from the early and short diastolic bruit of mitral stenosis. The wave of Hirschfelder and Gibson was often seen in jugular tracings in patients who did not present the third sound; this was natural, the sound was a feeble one at best, and its occurrence meant a somewhat vigorous closure of the auriculo-ventricular valves.

Dr. G. W. WATSON showed a specimen of Acute Vegetative Endarteritis of the Aortic Arch from a man, aged 59, who gave a definite history of syphilis. Death occurred from malignant disease of the transverse colon. In addition there was found an active tuberculosis of the lungs.

Dr. ALEXANDER SHARP showed a case of Gumma of Highmore's Antrum, with subsequent destructive lesion in the nose, causing necrosis of the inferior turbinal, nasal antral wall, part of the hard palate, and posterior part of the septum. There had been immediate response to "606."

Mr. B. G. A. MOYNIHAN showed a specimen of Diverticulitis of the Sigmoid. The condition had given rise to acute symptoms in the left lumbar region, and an abscess had been opened with a fæcal fistula as the result, when the case came under his care. Mr. Moynihan then performed a second operation, resecting the diseased portion of the gut, with complete recovery.

Dr. J. B. HELLIER showed a case of Sarcoma Uteri, with sarcoma of ovary, right pyosalpinx and appendicitis, and abscess in omentum. The affected parts were removed and good recovery made.

Dr. C. OLDFIELD showed a case of Post-abortion Tetanus in which recovery had taken place after the use of anti tetanic serum.

The PRESIDENT showed a patient on whom he had successfully operated for Ruptured Liver. The patient, a boy aged 12 years, fell down a hole 4 feet deep, and injured his abdomen by striking it against a stone. He was operated on about six hours after the accident on July 28th last. On opening the abdomen it was found full of blood, and a rupture on the upper surface of the right lobe of the liver, about 3 inches in length, which was freely bleeding. As the rupture was far back and could not be brought to the surface, the round ligament and part of the falciform ligaments were divided; this made it possible to bring the liver easily forward into the wound. The rupture was closed by six deep No. 5 catgut sutures. The patient was very collapsed, and he was infused with three pints of saline solution. He made a good recovery.

Cases and specimens were also shown by Dr. A. G. BARRS, Mr. G. CONSTABLE HAYES, Mr. W. H. HOOTON, Dr. M. J. STEWART, and Dr. W. W. ADAMSON.

DEVON AND EXETER MEDICO-CHIRURGICAL SOCIETY.

Pulmonary Gangrene, with Operation and Recovery.—Mycotic Infection.

A MEETING of this society was held at the Royal Devon and Exeter Hospital on Nov. 10th, Mr. J. M. ACKLAND, the President, being in the chair.

Dr. W. GORDON reported a case of Pulmonary Gangrene, with Operation and Recovery. The patient, aged 35 years, had had an attack simulating influenza on August 25th, 1911, and was confined to bed for three days; after an interval of six days a relapse took place, with raised temperature and a complaint of great pain between the shoulders. He returned to bed with cough and expectoration, the latter becoming horribly offensive in 48 hours. On Sept. 30th Dr. Gordon first saw the patient in consultation with Dr. C. E. Stokes, when the outstanding features of the case were distressing attacks of paroxysmal cough, accompanied with the expectoration of intolerably offensive sputum of a greyish colour. Turpentine given four-hourly in 15-minim doses had exerted no apparent influence, and it was therefore decided to admit him to hospital for vaccine treatment, and if necessary operation. On admission the temperature was 100° F. and the patient was evidently losing weight. A patch of deficient resonance was found posteriorly in the right lung about its centre. There was no evidence of excavation. Dr. R. V. Solly punctured and withdrew a couple of drachms of grey fœtid fluid, and from this a Gram-negative bacillus was isolated and a vaccine prepared. Meanwhile turpentine was given by the mouth and continuous inhalations were employed. On the fourth day following admission 1,000,000 bacilli from the prepared vaccine were injected, but after an initial rise the temperature soon returned to its former level with no tendency to further reduction. At this juncture the sputum became blood-stained in addition to its extreme fœtor, and operation was decided upon. Dr. J. D. Harris, under local anæsthesia, opened a small cavity below the angle of the right scapula, and offensive material escaped showing here and there blackish pieces of lung tissue. Following upon operation the temperature fell and tended to remain lower, although irregular and intermittent. Vaccine treatment was now continued, 5,000,000 bacilli being injected on Oct. 9th. On the 11th the temperature was still 100° and both discharge and sputum were most offensive. Dr. Gordon then ordered one-drop doses of cyllin four-hourly, but although there was a fall of temperature no improvement could be detected locally. On the 15th a mixture containing iodoform gr. v., cyllin ♏ v., and olive oil ℥ ss. was injected into the lung along the drainage-tube. Beyond a sharp attack of coughing there were no disquieting symptoms following the injection, and this was repeated on the 19th. Rapid improvement followed, and on the 30th the tube was left out. Further vaccine injections of 10,000,000 and 20,000,000 bacilli were given on the 20th and 30th respectively. Beyond a small sinus discharging inoffensive pus the man was now almost well. In reviewing the case Dr. Gordon was doubtful that any curative effect could be referred to the vaccine treatment, but the beneficial influence of the cyllin and iodoform could hardly be disputed, the temperature falling to and remaining at normal shortly after the second injection. Dr. Gordon testified his gratitude both to Dr. Solly and Dr. Harris for their association in the case, and he congratulated Dr. Harris on the operative results in a type of case so often fatal under surgical interference.—Dr. HARRIS said that the accurate localisation of the house surgeon had rendered the operation speedy and effectual.—Dr. SOLLY emphasised the importance of isolating the organism by lung puncture. In this case the Gram-negative bacillus obtained appeared to be non-pathogenic. In his mind the origin of such a case would be pneumococcic, other organisms finding an entrance when hepatisation had given place to necrosis.

Dr. SOLLY read a paper on Mycotic Infection. In this he mainly followed the classification and description of the French authorities, and confined himself chiefly to the blastomycoses, or exascoses, and the sporotrichoses. As regarded the exascoses, he mentioned that De Beurmann and Gougerot used this word to include those blastomycoses which were well recognised and defined, while the word blastomycoses remained to cover the ill-defined and doubtful forms. I. The exascoses were divided into (*a*) the saccharomycoses, (*b*) the endomycoses, and (*c*) the zymonematoses. (*a*) The saccharomycoses were mostly rare conditions, but produced: (1) an infection of the mucous membrane resembling thrush; (2) a disseminated gummatoid mycosis with osteitis of tibia, and finally general septicæmia; and (3) tumour formation (due to saccharomyces tumefaciens) with in one case a lumbar abscess and meningitis. (*b*) The endomycoses. Common thrush due to endomyces albicans. This was occasionally generalised. Other endomycoses occurred due to allied endomyces. (*c*) Zymonematoses. The word had its derivation from the Greek, meaning yeast-filament. The organism occurred in the pus and tissues as a yeast cell, but filaments or mycelia also were produced in cultures. Examples of zymonematosis were: the zymonematosis of Gilchrist, or

blastomycosis (or oidiomycosis) American. This occurred mainly as a papillomatous dermatitis, but generalisation also occurred, with acneiform pustules, ecthymatous or serpiginous ulceration, subcutaneous gummatoid nodules, large or small abscesses, and invasion of bones and viscera, gastro-enteritis, nephritis, broncho-pneumonia, meningitis, with definite pyrexia, great emaciation, and marked deterioration of general health. The prognosis was very grave, but by early diagnosis and treatment by iodides, combined with surgical and electrical measures, recovery might be effected. The diagnosis was in most cases arrived at by a bacteriological examination. Bacterial infections (including tubercle) must first be excluded. Films should be treated in a wet state by 40 per cent. aqueous caustic potash, and cultures made on Sabouraud medium. A general diagnosis of exascoses might thus be made sufficient for the purpose of prognosis and treatment. II. Sporotrichosis. This disease was apparently very common in France, and would probably be found more frequently in England, when medical men were on the look out for it. A case had been recently published by Dr. Norman Walker and Dr. J. Ritchie of Edinburgh with a very complete description of its clinical and bacteriological aspect, and illustrated by beautiful plates. The prognosis certainly depended on the diagnosis. If treated by large doses of iodides, with local applications of preparations of iodine, a rapid cure ensued, but untreated or treated as a case of tuberculosis or syphilis it might last for years. The fungus in the pus and tissues occurred in a short oblong form, like a large short bacillus, but in cultures showed a felted mycelium, attached to which were numerous spores. There were various clinical forms of this disease. 1. The disseminated gummatoid form due to general dissemination of the fungus by the blood stream. This was divided into (*a*) the non-ulcerative form, where the gummata which might be disseminated all over the body, slowly softened, finally ending in a cup-shaped swelling with marked induration of edges, and containing a viscid fluid, and in which ulceration rarely resulted unless the abscess was incised; (*b*) the ulcerated form where ulceration was common and more rapid; and (*c*) the mixed form, with disseminated nodules, and also affections of mucous membranes, muscular tissue, synovial membranes, bones, eyes, testes, and various skin troubles, resembling eczema, acne, boils, pemphigus, lupus, &c. 2. The localised form with gummatous nodules starting as an initial lesion, or "chancre," and extending up the limb by means of the lymphatic vessels and so causing a succession of nodules, as in Dr. Norman Walker's case. A localised facial or cephalic form had also been described. Extra-cutaneous varieties also were found, particularly affections of the bucco-pharyngeal mucous membrane, either an acute anginous condition, possibly with false membrane, or in a papillomatous form. An acute febrile sporotrichosis also might arise, with successive exacerbations like an acute infectious disease. Each fresh attack of fever was signalised by a fresh eruption of gummata, and rigors, vomiting, epistaxis, and sleeplessness also occurred. In experimental sporotrichosis all these lesions were reproduced, and also general septicæmia, with lesions in kidneys, liver, suprarenals, and testes, and pneumonia, peritonitis, endocarditis, encephalitis, and meningitis. A hereditary sporotrichosis was also observed. Rats and mice were the best animals to experiment with. The commonest form of sporotrichosis was the sporotrichosis Beurmanni. The clinical diagnosis had to be made from syphilis, tuberculosis, leprosy, general lipomatosis, glanders, and osteomyelitis, coccic or tuberculous. One of the chief points to observe was the great number of lesions combined with the good general condition of the patient. The multiple, softening, gummatoid subcutaneous nodules were most characteristic. The bacteriological examination was simple. Direct examination of pus or other fluids was of little value. Culture at room temperature of material freely spread on Sabouraud's medium should be made, and a diagnosis might be made quickly by letting a drop of pus flow down the dry glass of the culture tube, and observing this day by day microscopically when mycelial threads might be observed, and finally the typical cultural form, with spores and felted mycelium. A more rapid diagnosis might be made by an agglutination test, using free spores obtained by filtering an emulsion of a culture in salt solution. Agglutination also occurred in cases of other mycoses, such as an endomycosis or actinomycosis, but in a lower dilution. Dr. Solly showed a culture of sporotrichosis Beurmanni and a section of an experimental lesion of the mouse, most kindly given him by Dr. Ritchie (obtained from his and Dr. Norman Walker's case). He also showed stained films and a living culture, observed microscopically growing on an agar hanging drop, of sporotrichosis from Dr. Ritchie's culture, and a microscopical Gram-stained specimen of an epithelial scale infected with mycelial threads from a case of extensive tinea circinata.

At the close of the proceedings a resolution was moved from the chair and carried unanimously congratulating Dr. C. J. Vlieland on his election as mayor of the city of Exeter for the ensuing year.

EDINBURGH OBSTETRICAL SOCIETY.

Valedictory Address.

A MEETING of this society was held on Nov. 8th, Dr. F. W. N. HAULTAIN, the President, being in the chair.

The PRESIDENT chose for his Valedictory Address the association of Sir James Young Simpson with the society, at this was the 100th anniversary of Simpson's birth. He joined the society in 1840, on the first occasion showing the external genitals of a female with central perineal tear. During his first year he made 18 communications, one of which was on the differential diagnosis of fibroid from ovarian tumours by auscultation and detection of the bruit. In 1841 he was elected president, a position he held for 16 consecutive years. During the next session he read a paper on the Diagnosis of Diseases of the Womb by the Employment of Uterine Bougies or Uterine Sounds, dilating on the use of the sound from a diagnostic and therapeutic aspect, and proposed the permanent retention of a sound in the form of an intra-uterine stem for displacements. With the inception of the sound a new era in gynæcology might be said to have arisen and pelvic diagnosis placed on a scientific basis. Though communicating many interesting papers it was not until Jan. 20th, 1847, that one of outstanding importance was given, on a case of turning under the influence of sulphurous ether. He had delivered a living fœtus from a woman whose previous labour had with difficulty been completed by craniotomy. This was the first instance in which ether inhalation had ever been used during labour, and was destined to form the commencement of a new and important epoch in obstetric practice. This was of special importance with regard to the Boston controversy as to priority. This case was the commencement of a series of valuable articles on "Turning as an Alternative to Craniotomy." This patient was an example of early rising, as with Simpson's sanction she rose, dressed, and walked into the next room on the fourth day. At a subsequent meeting he read a paper on the Inhalation of Ether in the Practice of Midwifery, but the original communication on the all-important subject of Chloroform Anæsthesia was read at the Medico-Chirurgical Society on Nov. 10th, 1847. In the same year he read a paper on the use of Gattapercha for Obstetric Instruments, showing its ready adaptability for pessaries. A series of papers on fibroid tumours contained reasons against the induction of abortion when fibroids complicated pregnancy, and suggested the use of the galvanic current to promote atrophy and calcification. The subject of albuminuria in pregnancy occupied his attention also in 1847; in the paper he showed that when convulsions supervened there was a marked diminution in the quantity of urine passed and the amount of urea it contained; and mentioned the greater frequency of this condition in primiparæ than in multiparæ and the tendency to complete cure. In 1854 he discussed the advisability of inducing labour in cases of severe albuminuria, and proposed the method of induction by passing the sound between the membrane and the uterine wall. In 1851 he published a paper on the Communicability of Puerperal Fever, and laid stress on the disease being acquired in the majority of instances, not by direct infection from one to another, but by the aid of a third party, the medical attendant or nurse. The subject of forceps occupied his attention, and he laid down the principle that it was the delayed use of the forceps, not their ready use, in which their supposed danger lay. As regards ovariotomy, he strongly urged, in 1845, the necessity of its performance, and decried the palliative procedure of tapping. Simpson made public through that society an

immense amount of valuable work, impressing them with the magnitude of his powers and the extraordinary fertility of his brain. His entire efforts seemed to have been concentrated in the attempt to diminish suffering. Wealth and fame had to him no attractions. Interest in his work absorbed him; a freak in the Cowgate would attract him from a houseful of patients redolent with the *élite* of Great Britain. His influence on the medical school was remarkable, and he was ever ready to help and stimulate younger workers and to give praise where it was due. In conclusion, Dr. Haultain advocated the commemoration of the centenary of his birth by erecting a suitable maternity hospital.

The following were the office-bearers elected for the ensuing session:—President: Dr. J. Haig Ferguson. Vice-Presidents: senior, Dr. N. T. Brewis; junior, Dr. J. W. Ballantyne. Treasurer: Dr. G. F. Barbour Simpson. Secretaries: Dr. Angus Macdonald and Dr. B. P. Watson. Librarian; Dr. J. Lamond Lackie. Editor of Transactions: Dr. H. Oliphant Nicholson. Members of Council: Dr. W. Craig, Dr. E. H. Lawrence Oliphant, Professor J. A. C. Kynoch, Dr. Kenmure D. Melville, Dr. F. W. N. Haultain, Sir J. Halliday Croom, Dr. William Fordyce, and Dr. A. M. Malcolmson.

LIVERPOOL MEDICAL INSTITUTION.

Albumin Reaction in Tuberculous Sputum.—Orthopædic Surgery.—A New Cell Proliferant.

A MEETING of this society was held on Nov. 9th, Dr. T. R BRADSHAW, the President, being in the chair.

Dr. NATHAN RAW read a note on the Albumin Reaction in Tuberculous Sputum. He said that Lesieur and Prirey had found this reaction present in 75 per cent. of cases before the appearance of physical signs. Dr. Raw gave his own experience of the value of this test, which he said was, on the whole, favourable.—Dr. W. B. WARRINGTON and others mentioned some difficulties in the way of the application of the test.

Mr. ROBERT JONES described several operations in Orthopædic Surgery—(1) an operation for extreme claw-foot; (2) an operation for ankylosed tubercular shoulder; and (3) removal of bone wedges with interval fracture.—Mr. RUSHTON PARKER thought that the methods mentioned were worthy of praise and support.—With regard to the operation on the shoulder-joint, Mr. JONES said that sinuses were rather rare. If present he would, as a rule, wait until healing had taken place.

Dr. C. J. MACALISTER communicated a paper on a New Cell Proliferant, the investigation of which had originated from the study of the Symphytum or common comfrey. In the old literature of medicine the root of this plant was invariably referred to as being a valuable vulnerary, and although long abandoned by the profession it was still much used by country people as a dressing for sores. Having been much impressed with the importance which was attached to comfrey in the past and with the recorded cases which seemed to benefit from it, he proceeded to investigate it. On being analysed by Dr. Titherley and Mr. Coppin, of the chemical department of the University, it was found to be rich in allantoin which was afterwards prepared synthetically, and on experimenting with solutions of this substance it was found to act as a potent cell proliferant. Dr. Macalister quoted the observations which he had made himself and which others had made for him with ulcers of various types dressed with allantoin solutions with a view to test its efficacy, and there was no doubt that it had accelerated epithelial growth and that it would prove useful in the future for the treatment of ulcerative conditions.—Several members gave evidence as to the value of the drug as applied by Dr. Macalister.—Mr. PARKER thought that some surgeons too seldom thoroughly acquired the principles underlying the accurate management of ulcers.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.—A clinical meeting of this society was held at the Royal Sussex County Hospital on Nov. 8th.—Dr. E. Hobhouse exhibited: 1. A case of Tumour of the Optic Thalamus in a male aged 19, who had double optic neuritis, with marked tremor of the intention type, and some weakness and ataxy of the right arm. There was no astereognosis or anæsthesia, or other symptoms. He was improving without any treatment. 2. A case of Anterior Poliomyelitis in a young man of the paraplegic type. At the commencement of the attack there was a good deal of pain in the legs, but now sensation was quite normal. He was making a good recovery, being able to walk, although somewhat lame.—Dr. W. Broadbent showed: 1. A woman who several years ago had a Pneumothorax on the right side, with the heart displaced to the left. The air had become absorbed but the lung remained collapsed; consequently the heart had been drawn over to the right until the apex was in the right vertical nipple line. 2. A case of Early Myxœdema in a woman which was improving under thyroid extract. There was still some solid œdema of the face, and her hair was falling out. The skin had been dry and she was very lethargic. 3. A youth aged 20 with Right Hemiplegia and Aphasia of Embolic Origin, which came on suddenly nine months ago. He had aortic regurgitation, with a loud diastolic murmur over the base of the heart; also a well-marked presystolic murmur at the apex with no evidence of mitral stenosis (Flint's murmur). 4. A man aged 65 with Stokes-Adams Disease. His heart-rate was 28, with an auricular rate of 80. He has syncopal attacks at intervals. He has been under treatment for two years and is able to work in his garden.—Dr. A. Winkelreid Williams showed two cases of Diverse Skin Diseases the nerve origin of which is undecided, but which were localised on definite zoster areas. 1. Linear Morphœa in a young woman in which there were two wide streaks, an oblique one on the left parietal region of the scalp and a vertical one on the forehead extending up into the scalp just to the left side of the middle line. Both patches were in the atrophic stage, the disease having lasted 12 years. Both showed a distinct atrophic groove in the underlying bone. The area affected is supplied by the two branches of the frontal nerve, the supra-trochlear and supra-orbital, the defect being probably in the Gasserian ganglion. 2. A Verrucose Nævus in a child aged 7. The condition was first noticed at six months of age. It mapped out exactly the area of the third cervical nerve as depicted in Head and Campbell's monograph on the pathology of herpes zoster. The patient is under treatment with solid CO_2.—Mr. A. H. Buck showed a case of Excision of a Tuberculous Knee-joint in a girl aged 19. The knee was first treated for seven months in a Mackintyre splint, which reduced the swelling and straightened the limb. It was then put into a Thomas's splint for six months, but it still remained painful when any weight was put on it owing to stretching of adhesions. The knee was therefore excised, the patella being saved by division, shaving off the posterior aspect, and uniting by wire at the end of the operation. The result after 12 months' walking was a perfect position, and as good utility as could be expected after excision.—Mr. A. G. Bate (for Mr. T. H. Ionides) exhibited: 1. A case of Paralysis of the Deltoid, Supraspinatus, and Infraspinatus, due to a lesion of the brachial plexus caused by a fall on the shoulder. 2. A patient with Symmetrical Painless Swellings of the Hands. Skiagrams showed that the process involved the bones also with the same symmetry. The terminal phalanges were rarefied, especially in the little finger; the other phalanges showed at their distal ends absorption, which gave to them the appearance of having been drilled with a gimlet. The degree of swelling seemed to correspond in each finger with the severity of the underlying bone condition. There was no history of syphilis and Wassermann's and von Pirquet's tests were negative. There was no sign of any nervous lesion, peripheral, spinal, or cerebral. The general health of the patient was excellent and the disease had developed without any demonstrable cause. It was suggested that the condition was a neuropathy, of a nature allied to that seen occasionally in syringomyelia.—Dr. H. Galt showed the following specimens: 1. Aneurysm of the Transverse and Part of the Descending Arch of the Aorta. There was much firm laminated clot. The bodies of the second, third, and fourth dorsal vertebræ were much eroded, the intervertebral discs being prominent as usual. The sac had ruptured into the œsophagus. 2. Typhoid Ulcers in the Ileum. The Peyer's patches were involved almost exclusively. 3. Two Longitudinal Sections of the Femur in Pernicious Anæmia, and one from a case of Spleno-medullary Leukæmia. 4. The Central Nervous System from a case of melanosis secondary to a diffuse hairy mole of the surface of the body, which was also pigmented. The pigment in the nervous

system was deposited in the pia mostly around the normal nerve tissue, but the temporo-sphenoidal lobe was practically converted into a melanotic mass or true melanotic sarcoma. 5. An Ovarian Cyst from a girl aged 10. 6. Pregnancy in One Division of a Double Uterus. 7. Acute Endocarditis involving the wall of the left auricle. At an earlier date the mitral valve was involved from a streptococcal infection, while the endocarditis of the auricular wall was due to a pneumococcal infection. 8. Advanced Atheroma of the Circle of Willis, one vertebral artery being completely occluded, and also some of the smaller branches. There was extensive paresis. 9. Marked Funnel-shaped Deformity of the Mitral Valve with General Thickening. 10. Patent Foramen Ovale. 11. Sarcoma of the Ovary. 12. Blood Films from a case of Spleno-medullary Leucocythæmia, showing an enormous Leucocytosis. 13. Photographs of a case of a General Yielding of the Lower Abdominal Wall. This followed a laparotomy some years ago, but as far as the skin was concerned the scar had not given.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Nov. 9th, Dr. E. Knight, the President, being in the chair.—Mr. G. E. Mould, in opening a discussion on Simple Melancholia, said that simple melancholia—i.e., melancholia without delusions—was essentially the same disease as delusional melancholia. Whether the one would pass into the other was determined by the degree of instability of the nervous system and by the strength of the deleterious influences brought to bear upon it. The division was an artificial one, yet it marked both an important stage in the disease and a starting-point for a different line of treatment, raising the question whether the patient was insane, and if insane whether he was certifiable. The simple melancholic was insane from the medical point of view. Whether he was from the legal point of view depended upon whether he was suicidal. Putting aside the question of identity of melancholia and mania, melancholia was a definite disease presenting definite physical signs and a characteristic mental state, but the physical signs might be absent in the earlier or less-developed simple form. It was indeed the most horrible and cruel affliction that could befall any conscious being. Such a condition was very different from physiological melancholia, better referred to by the English name—melancholy. The simple melancholic, with his intellect practically unimpaired, would constantly cast about for a fresh cause for his misery, attributing it to errors of conduct or of living. An unstable nervous system being the prime cause, they found, as they would expect, an ancestry showing examples of insanity, epilepsy, alcoholism, gout, asthma, and particularly phthisis. Adverse influences came into play at critical periods, puberty, adolescence, before or after childbirth, climacteric, and senility. Uncommon at puberty, when the feelings were undeveloped, it was seen most typically at adolescence and onwards to middle life when the feelings and emotions were most intense. At that period, however, there was a great recuperative power, so that the simple was less likely to pass into the delusional form than later. At the later periods there was not such an active sense of misery. They could soon see by its stationary character that a simple was not going to pass into a delusional attack, and then they knew that recovery was merely a matter of time, if they could guard against the danger of suicide. The majority of simple melancholics were not actively suicidal. They were intelligent. They remembered what they used to feel about life, and could understand when told that they would be capable of feeling the same again. They had considerable will power, enabling them to live in hope without the ordinary inducements of mankind. What they had to do was to gain time. The most important thing was to place the patient under the right man. He must be taught to see life through the eyes of another, until such time as he was capable of seeing it sanely through his own. Differential diagnosis had to be made from neurasthenia, psychasthenia, hysteria, and hypochondriasis, apart from the question whether the simple melancholia was the preliminary stage of delusional melancholia, mania, general paralysis, and dementia præcox. Fatigue was not a symptom of melancholia, as it was of neurasthenia, as evidenced by simple melancholics often undergoing severe exertions to try to rid themselves of their despairing sense of misery, and delusional cases pacing to and fro all day or standing contentedly upright. Psychasthenics were only intermittently anxious and fearful. Hysteria was very characteristic; also its manifestation took place in public. The melancholic would pull himself together in company. Hypochondriasis was more allied to chronic delusional insanity. The question might be complicated by the occurrence of several of the neuroses in the same person. An acute attack of simple melancholia might come on and pass away in a neurasthenic, or a "phobia" or obsession might come on and outlast an attack of simple melancholia.—Dr. Arthur J. Hall referred to the difficulty of diagnosis. Melancholy was a symptom, not a disease. It might be physiological and the absence of grief pathological. It was difficult to distinguish delusions from various types of "phobia," particularly when they were associated with considerations of personal health. In discussing the treatment of melancholics he laid particular stress on the importance of listening carefully and with interest to everything the patient had to say, however trivial and often repeated, and to follow that by a complete and exhaustive physical examination. This served two purposes: first, to be quite sure that there was no organic basis for the condition, and secondly, to be able to satisfy the patient's protean complaints of visceral disease. As regards treatment the main objects were fourfold: (1) to remove the cause; (2) to prevent harm; (3) to relieve symptoms; and (4) to get over time. As regards relieving symptoms, he spoke of several simple methods of dealing with insomnia, and urged their use in order to avoid, as far as possible, the use of drugs.—Dr. A. L. Husband said that it was of the greatest consequence to gain the patient's confidence, and much depended on the individuality of the medical attendant. It was important, if possible, to supply new interests in life. He was of opinion that many of the peculiar "phobias" were attributable to refractive errors.—Mr. A. C. Turner defined melancholia as a saturated solution of grief with decreased objective consciousness and increased subjective consciousness. In delusional melancholia if one delusion was wiped out another would most likely take its place. In making the physical examination they should be especially careful to look out for anything that might give rise to his delusions, such as bad teeth in cases of poisoning delusions. They should not begin by trying to prove to him that his delusions had no foundation.—Dr. Sinclair White showed: (1) A case of supposed Epithelioma of the Tongue in a woman who had long-standing leukoplakia; and (2) a woman with a Tumour of the Breast, which was probably a cystic adenoma, but had many characteristics signs of malignancy.—Dr. Percival J. Hay showed a child with the rare condition of Coloboma of both Upper and Lower Lids of the Right Eye.—Mr. W. S. Kerr showed a man with a large Choanal Polypus which filled up the naso-pharynx and appeared below the soft palate.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Nov. 15th, Dr. F. H. Jacob, the President, being in the chair.—Dr. J. Lyn Dimond read a paper on the Treatment of Bacterial Disease by Vaccines. He pointed out that the production of passive immunity by sera was disappointing. Of the two varieties of sera, (1) antitoxic or neutralising, and (2) antibacterial or curative, the antitoxin of diphtheria in (1) and the anti-streptococcic serum in (2) had alone fulfilled to any extent the hopes of their investigators. Though vaccines could be administered without control in many cases, the opsonic index or other methods of investigating the immunity reaction was absolutely necessary in order to obtain the best and quickest results. It was probable that one of the quantitative modifications of the Bordet-Gengou reaction would ultimately replace the opsonic index. White's "pus-film" method was an extremely quick and reliable method of controlling inoculations in pyogenic diseases. Arneth's method of counting the number of lobules in the polymorphonuclear leucocytes gave information which helped the control of the inoculations; where there had been a succession of severe negative phases there was a definite movement to the left side of the figures representing the percentages. The subcutaneous route for the administration of vaccines was a necessity. The following examples might be given: (1) The subcutaneous injection of the diphtheria toxin brought about a much greater yield of antitoxin than intramuscular injections; (2) in antityphoid inoculations where there was a

great local reaction the protection was greater than where local reaction was slight and there were marked constitutional symptoms. There was no effect on the index after oral or rectal administration, and only slight after intravenous injections. Rest was a necessary factor in vaccine treatment in order to prevent excessive auto-inoculations. In the treatment of ulcerated malignant disease autogenous vaccines prepared by growth on media manufactured from the patient's own new-growth tissue undoubtedly produced resolution of new growth in addition to healing of ulcers, &c. Chemical sterilisation, at any rate in the case of such organisms as pneumococci, Friedländer's organism, and streptococci, was superior from a therapeutic standpoint to heat sterilisation. Koch's old tuberculin was superior to tuberculin R. and B.E. in the treatment of tuberculous adenitis in children. Tuberculin B.E. was a specific for those cases of pulmonary phthisis coming under Turban's Class I and in which the diagnosis had been verified by the injection of old tuberculin. The speaker illustrated the principles of vaccine-therapy by clinical notes of three consecutive cases of post-partum toxæmia due to streptococcus fæcalis.—Dr. C. H. Cattle, Dr. A. R. Tweedy, Dr. W. T. Rowe, Dr. J. Mackenzie, Dr. H. J. Neilson, Dr. E. H. M. Milligan, Dr. B. Freer (Grantham), and the President joined in the subsequent discussion.

THE NEW LONDON DERMATOLOGICAL SOCIETY.—A meeting of this society was held on Nov. 9th.—Dr. David Walsh read a short summary of a paper upon the Influence of Cardiac Disease upon Cutaneous Disorders.—Dr. Tom Robinson showed: 1. A man previously exhibited at the meetings with an Infiltrated Lesion upon the back of the Right Hand in which X rays had not caused much improvement. 2. A man with a lumpy Sycosis, clinically resembling Tinea Barbæ, but neither spores nor mycelium had been found on microscopic examination.—Dr. W. Knowsley Sibley showed: 1. Two boys, aged 10 and 7 respectively, who had had numerous patches of Multiple Lupus scattered over the limbs and body, following upon measles. The treatment had consisted in the application of solid carbon dioxide followed by the application of X rays. Several of the lesions had healed beautifully. 2. A young man, aged 23, with recent Lupus Erythematosus of the Face, who presented the typical "chilblain circulation."—Dr. G. Norman Meachen showed: 1. A case of Lupus Erythematosus in a girl of 7 of four months' duration. The rarity of the disease at this age was commented upon. 2. A case of Tertiary Syphilide of the Face in a woman of 36, clinically resembling a seborrhœide. The patient also gave a strong family history of tubercle. 3. A young man with Multiple Lupus following upon measles and varicella. Numerous scars, some of which were due to varicella only, were present upon the limbs and face.

PADDINGTON GREEN CHILDREN'S HOSPITAL.—Her Royal Highness the Princess Louise, Duchess of Argyll, visited the Paddington Green Children's Hospital on Nov. 16th, in order to declare open the new out-patient department. Her Royal Highness was received by Mr. Douglas Owen, chairman of the committee; Mr. George Hanbury, treasurer; and the members of the hospital staff. Mr. Owen gave a brief history of the hospital and of the circumstances which had led up to the present important extension. Thirty years ago, he said, it was decided to replace the North-West London Free Dispensary, near Lissongrove, by a cottage hospital for children, and mainly owing to the personal efforts of Mr. Hanbury two newly erected houses on the present site were purchased for the purpose. This hospital was opened in 1883 with 23 beds. In 1892 the hospital was demolished and a new building erected. The out-patient accommodation soon became quite inadequate, and the new buildings had been provided at a cost of about £11,000. Unfortunately, there was still a debt of £2000 on the buildings. Sir Frederick Milner and Sir Henry Seton-Karr having moved and seconded a vote of thanks to the Princess for her kindness in attending, the Duke of Argyll replied and emphasised the importance of societies for the education of mothers in the healthy up-bringing of their children. A large number of purses were then presented by children to Her Royal Highness, who was afterwards conducted over the new building. The Princess then inspected the display of articles contributed by the Ladies' Work Association, and finally visited the wards.

Reviews and Notices of Books.

On Diseases of the Lungs and Pleura, including Tuberculosis and Mediastinal Growths. By Sir R. DOUGLAS POWELL, Bart., K.C.V.O., M.D. Lond., F.R.C.P. Lond., Hon. D.Sc. Oxon., M.D. Dub., F.R.C.P. Irel., LL.D. Aberd. and Birm., Physician in Ordinary to His Majesty the King; and P. HORTON-SMITH HARTLEY, M.V.O., M.A., M.D. Cantab., F.R.C.P. Lond. Fifth edition. With 29 plates (6 in colours). London: H. K. Lewis. 1911. Pp. 712. Price 21*s.* net.

THE new edition of this standard work on Diseases of the Lungs will be cordially welcomed by the medical profession, for it embraces the matured doctrines of a great authority who has not blindly accepted new views of the treatment and etiology of the affections in question, and in addition the results of the experience of a younger physician still on the acting staff of the Brompton Hospital—that storehouse of facts concerning thoracic ailments. Eighteen years have elapsed since the last edition of the work was issued. During this period the science of medicine in relation to diseases of the lungs has seen many changes. The authors have not hastily published their facts, for they tell us in the preface that well-nigh ten years have been spent in the production of the present edition. Every sentence of the former edition has been revised, many additions have been made, and much has been altered or eliminated in the light of the interval that has elapsed since the previous issue.

The account given of the essential points in the anatomy and functions of the lungs remains but little altered from the previous edition—no necessity whatever for any real modifications has arisen—but an effective X ray photograph has been inserted showing the normal distribution and general arrangement of the bronchial tree after Dr. W. Brünings. In the chapters on the Physical Examination of the Chest the excellent table setting forth the terminology and common significance of the facts elicited by palpation and auscultation is retained. It is a matter of regret that the terms there employed, which were carefully selected by Sir R. Douglas Powell and by the late Dr. Mahomed, acting as English members of a committee nominated at the International Congress held in London in 1881, have not been more generally adopted. Much confusion still exists in this respect, as various authorities employ different terms to indicate the same physical signs, and uniformity is much to be desired. We recommend for general adoption the nomenclature here chosen.

The examination of the sputum is fully dealt with; this is illustrated by two beautiful plates showing Curschmann's spirals. These plates were in the previous edition of this work. The deformities and diseases of the chest wall then claim attention. The morbid conditions of the pleura are set forth under the various sections embracing the different forms of pleurisy, the subjects of hydro- and pyo-pneumothorax, hæmothorax, hæmopneumothorax, and chylothorax. The authors point out that the majority of the primary cases of acute sero-fibrinous pleurisy arising *de novo* do not owe their existence to exposure to cold or draught, as was formerly thought, but are really tuberculous in nature. The account of the clinical symptoms is excellent, whilst the whole subject of paracentesis thoracis is treated in a masterly fashion.

In discussing the diseases of the bronchi the section is illustrated by a speaking plate showing the casts expectorated in plastic bronchitis. This plate was also in the last edition. In their remarks on the pathology of asthma the authors express the view, confirmed by the researches of C. J. B. Williams and of Brodie and Dixon,

that the theory of bronchial spasm would be adequate to explain the asthmatic attack. A full description of the various remedies found useful for correcting the spasm, and of the methods of using them, is given. A wise warning is inserted to beware of prescribing too freely the hypodermic injection of morphia. In the chapter on emphysema the authors give an interesting section on aerotherapeutics: this method of treatment is certainly of benefit in many, although not in all, cases. In discussing the causation of pneumonia it is stated that cold is by far the commonest cause of the disease. This opinion, which is certainly the one held in England, does not seem to obtain universally. Dr. Sanders, in a paper published some years ago in the *International Journal of Medical Science*, showed by statistics that "pneumonia, other things being equal, increases uniformly in frequency the nearer we approach the equator. That is to say—and the fact is a surprising one and one distinctly opposed to its presumed dependence upon cold—the disease is more frequently met with, and is more common, in warm than in cold climates, showing a gradually increasing ratio from the Pole to the Equator." This statement of Dr. Sanders would appear to be borne out by the experience of Indian physicians. An epidemic form of pneumonia is met with pretty frequently in the Punjab and on the North-West Frontier. With regard to the treatment of this disease the authors evidently do not believe in that valuable old remedy antimony.

Without attempting to indicate the alterations and additions which have been made in this edition, we naturally turn to those subjects which have been prominently before the profession in order to ascertain the conclusions arrived at by the authors in their extensive experience. The subject of pulmonary tuberculosis occupies a large portion of the volume, and in political and general circles, as also amongst the profession, the treatment of this affection is receiving an unusual amount of attention. It has been brought home to us all that in the prevention of phthisis we have a possible social reform which will bring benefits that it is quite impossible to estimate. The sanatorium treatment is described at length, and especial attention is drawn to the favourable effect of exercise and work in selected cases. This method has been elaborated at the Brompton Hospital Sanatorium at Frimley under Dr. M. S. Paterson, whose words are quoted; and the authors consider that the results of treatment already published have been gratifying. They also view with favour the contention that has been advanced that the good effects are due in great part to autoinoculation of tuberculin and subsequent immunisation. The conclusions arrived at as to the employment of tuberculin are also of particular interest. We would here draw attention to the fact that after due deliberation the authors decided to follow the more modern German system and to prescribe the remedy by measure only in cubic centimetres and fractions of the same. This method has its advantages if larger doses are employed, but with the more minute doses the number of cyphers which are required are rather bewildering; for instance, the small initial dose of "T.R." which is frequently employed is represented by 0 000,000,001 cubic centimetre. A more convenient method would seem to be to express the amount in fractions of a milligramme; we venture to question whether any benefit to dispensing counterbalances the unwieldy notification. The conclusions as to the results of treatment by tuberculin are expressed clearly and fairly. The authors maintain that the use of tuberculin in one form or another is a rational one, and leads to an increase in the body of opsonins and agglutinins, and presumably of other protective substances; in their own words, they "have no hesitation in recommending a course of tuberculin, provided that the patient possesses sufficient vitality to yield the requisite response demanded by a proper use of the remedy."

The vaccine treatment of pneumonia is discussed, and it is admitted that the results obtained by some observers are on the whole encouraging. The authors have used vaccines in some cases of acute pneumonia, but they are unable to arrive at any determined conviction in regard to their general utility in this disease.

There is an admirable summary of the various climatic resorts to which consumptives may have access, and in the concluding chapter will be found a learned account of intrathoracic tumours.

We congratulate the authors on their work. While space forbids us to comment on all the very interesting contents, we can safely say that no affection of the lungs has escaped the notice of the writers. One of the features in this new edition is the number of excellent illustrations of sections of the lungs, which are beautifully executed.

Manual of Physiology for Students and Practitioners. By H. WILLOUGHBY LYLE, M.D., B.S. Lond., F.R.C.S. Eng. With 1 plate and 135 figures in the text. London: Henry Frowde and Hodder and Stoughton. 1911. Pp. 747. Price 15*s.* net.

IN this manual histology is referred to only in those cases where it directly bears on physiology, and embryology is not included, while diagrams of instruments and details of experiments have, as far as possible, been purposely omitted. The book is none the less a large one, over 700 pages, though by the use of excellent type and well-selected paper the volume has been rendered far from bulky. The author invites friendly criticism, and perhaps this invitation can be best acceded to by taking the list of subjects seriatim—15 sections in all. They are on general and chemical physiology, diet and digestion, cardio-vascular system and allied organs, respiration and allied functions, metabolism, animal heat and the skin, excretion, nervous system, nerve and muscle, the sense organs, and reproduction.

The section on chemical physiology (pp. 13–72) is concise, and due prominence is given to the newer views of the constitution of proteins and the importance of lipoids. "Foundation stones" is hardly, however, the exact translation of the "Bau Steine" of the Germans as applied to the amino-acids. The important subject of diet is considered in 14 pages, while to digestion in the broad sense about 80 pages are given. All this is good. The work of Hertz has been largely drawn upon. We do not think the student could possibly understand Pawlow's gastric pouch from the description given on p. 100, and we are at a loss to know what is meant by "broken cardiac compensation" on p. 125. A new form of energy, the biotic energy of Moore, is invoked as being mainly the cause of absorption of the products of digestion by the villi. Surely the experiments on deglutition referred to on p. 148 were made by Kronecker and Meltzer, and not Maltzer.

About 60 pages are devoted to the cardio-vascular system. The heart is said to "consist of four chambers—two auricles placed above a fibrous plate and two ventricles below it." The author is not at his best in describing anatomical details. The right ventricle is said to have "a strand of muscle fibres stretching across its cavity from the wall to the septum, the moderator band." No free moderator band exists in man, though one occurs in the heart of the sheep. On p. 183 there is another misprint, Starling instead of Stirling, while the famous experiment on the depressor nerve is attributed to Ludwig and Lyon, instead of Cyon.

Blood is dealt with in about 40 pages, but nothing is said about its viscosity, and some of the statements require revision. In describing the functions of the colourless blood corpuscles, the author says that "they are the carriers of the blood-stream and of the lymph

stream" (p. 248), but surely there are other carriers in the blood stream. Tannic acid does not usually cause the oxyhæmoglobin in frogs' corpuscles to collect into a small globule and become attached to the nucleus; on the contrary, as described by Roberts long ago, "pullulation," or the formation of little globules, appears on the surface of the corpuscle. Blood is said to be opaque "because it contains solid elements," but the mere presence of solid elements is not the cause of the opacity of the blood. The occurrence in this section of the word "suitable" as a misprint for "stable" is a little indication that close revision has not been carried on.

The important subject of metabolism occupies about 60 pages. The author seems at his best in dealing with the chemical part of physiology, and this chapter is both instructive and concise. About 40 pages suffice for excretion, including the kidneys and the urine. To the nervous system about 120 pages are allotted, and here we find at one place "artefacts" and at another "artifacts." The discovery of the T-shaped division of the axis-cylinder of a unipolar nerve cell is attributed to Remak. Surely it was not Remak, but Ranvier, who discovered it. Twenty pages are devoted to muscle, and to the senses about 30 pages. Here some of the diagrams are rather crude, but the text gives so good a summary of the leading facts and theories that they probably serve their purpose.

There are practically no dates given to indicate what is recent and what is not. There is nothing to guide the student as to when the beginnings of real discoveries in cerebral localisation were made. Quantities are sometimes given in "grs.," "drms.," and sometimes in the metric form; measurements sometimes in inches, sometimes in centimetres. And lastly there are too many misprints and slips. We find, for example, "vitale" for "vital," "twist" for "twitch," "worked" for "washed," "heart" for "heat," and "motor cord organs" for "motor end organs," while we can assure the author that his interesting book has been read with no desire to pick small faults.

The author conveys a large amount of physiological information in this manual, which the average student of medicine will find a useful, well-proportioned, and handy compilation. Because the book is in essentials so good and thoughtful we have pointed out small blemishes which can be removed in editing the work for further issues.

Public Hygiene. By T. S. BLAIR, M.D., assisted by Numerous Contributors. Two Volumes. London: Rebman, Limited. 1911. Pp. 644 and 153 illustrations. Price 42*s.* net.

Dr. Blair, of Harrisburg, Pennsylvania, the author of several works on medical treatment, has been led to turn his attention to public hygiene from his conviction that this subject has "developed too much as a specialty and needs the tempering conclusions of the whole body of the medical profession"; and in these volumes he has aimed at informing the rank and file of the profession on the public work which is done in America in the interests of health, whether by the Legislature and officials, or by individual firms and corporations for the benefit of their employees or customers.

So that his writings should relate to "a basis of real accomplishment rather than that of a propaganda," the author has made many trips of inspection, annexed information from all sources, obtained illustrations of every kind (including photographs of medical missionaries and model ironworks), and on many of his subjects has secured contributions by experts and copious extracts from official documents. There are chapters on hotels, maternities, places of amusement and dissipation, State departments and boards of health, hygiene of camps, internal sanitary installations of houses, public works, and many other matters, on all of which Dr. Blair imparts much useful information, together with not a little gossip and occasional criticism of the shams (the "flub-dub," if we may use his word), which have come under his notice. While giving high praise to the results of local administration in the different States, he is keenly alive to the dangers of ignorant interference on the part of unqualified inspectors and officials appointed on political grounds, and is by no means carried away by the sentimentalists. Thus, on the health of foreign coal-miners, "it is very easy to criticize the brutal mine boss: very much easier than it is to boss a gang of dagoes. Also, be it remarked, the average dago has no idea the boss is being brutal. As to sanitation, the bed bugs are so thick in the shanties that the mere microbes have no chance. The foreign section in a mining town will begin to be sanitary when the law requires that it be burned down twice a year."

The book is well indexed, and deserves to be remembered as a repository of notes on many subjects on which information is not always readily obtainable. The heating of American houses and offices, rules for inspection of illuminating oils, and the sanitation of penal institutions are instances in point. The section on Public Carriage and Sanitation is particularly full, and includes regulations in force for cleansing and disinfecting railway carriages, notes on ventilation and warming of cars, and like matters. We are afraid that the "proper house drainage" illustrated on p. 390 would be rejected in any British municipality. Dr. Blair, by the way, boldly prophesies that "in England the time will soon be that the doctor will wear a State uniform and live upon a State salary."

Grundriss der Zoologie und vergleichenden Anatomie für Studierende der Medizin und Veterinärmedizin. By ALEXANDER BRANDT. Berlin: Hirschwald. 1911. Pp. 647. Figs. 685 in text. Price 14 marks.

THE output of elementary works on zoology seems to be fully as great in Germany as in England, and rather contradicts the prevailing impression that the study of this science has suffered some eclipse of late years. For a book like the present—and there are many of the same character appearing at intervals—is emphatically for the student and not for the general reader with no examination in immediate view. And the publication of such text-books implies at least the existence of a class for which they are intended.

The present volume is reminiscent of the very well-known text-book, Railliet's "Zoologie Médicale et Agricole," which has a scope very similar to that of the volume under review. The French professor, however, has catered more fully for his veterinary readers than has Dr. Brandt. The parasitic worms naturally form a distinct feature of Dr. Brandt's volume and thus mark it out from text-books which aim only at a general sketch of the animal kingdom. It is much more important for the student of medicine, whether he proposes to deal with human beings or with domestic animals, to have a full knowledge of tapeworms and nematoids than of the systematic position of balanoglossus or of the main sub-divisions of the echinodermata.

Dr. Brandt, however, gives a good account of the worms in question, though it is not very full as regards the domestic animals. Nearly all the tapeworms belonging to the division of tetracotylea (and to this division nearly all the worms infesting the higher vertebrated animals belong) are relegated to the genus tænia, which is thus used in an antiquated and now effete sense, the genera monieza and drepanidotænia being excepted. Furthermore, while the human tapeworms are treated fairly exhaustively, the section dealing with worms that occur in fowls is too short to be of any use. The author, in fact, only mentions drepanidotænia infundibuliformis (which is properly choanotænia infundibulum) and ligula as occurring in birds. Many species in

reality frequent the intestinal tract of Gallus. The necessity for compression and consequent omission has led the author into dealing in a very "stepmotherly" fashion (as his countrymen say) with other groups of the animal kingdom. But the protozoa are treated with commendable fulness—comparatively speaking. Dr. Brandt has, in fact, a good deal to say concerning trypanosomes and spirochætæ, which are of such enormous importance in medicine.

The pages in which the characters of the vertebrata are set forth are naturally many, in view of the large size of that group and the many types which must be touched upon, since they are familiar to everyone. An illustration of the posterior lymph hearts of the frog is interesting. The actual species of frog which has been selected is not identified, but each lymph heart consists, according to the illustration, of two more or less completely separated "hearts." It is usually and quite positively stated that each of these organs of propulsion of the lymphatic system in the common frog is a single organ with but one cavity; this is the view of most students' text-books. But several continental authorities, including no less a person than Professor Ranvier, have alleged the contrary, while there is absolutely no doubt about the fact that the great frog from the Solomon Islands, known as Rana guppyi, has each of its lymph hearts divided by an internal septum into two spaces. Thus Dr. Brandt has found himself plunged into an anatomical squabble, holding, however, a definite opinion on its merits.

The author, indeed, is not contentious; he deals with such controversial subjects as occur in his survey without acrimony. If views are very divergent he merely indicates that there is divergence. Especially is this the case during the pages at the commencement of the book, in which he sets forth the results of opinion as to some of the more general principles of zoology, such as the definition of species, the origin of variation, geographical distribution, and so forth. This section, which appears to us very well placed, precedes the middle part of the volume; this is by far the longer and contains an enumeration of the characters of the subdivisions of the animal world. The book concludes with a comparative anatomical section, which is mainly vertebrate in its scope. Few errors or obvious misprints have been noticed. One instance, however, must be mentioned as it might deceive. In giving the characters of the oligochætous worms Dr. Brandt writes of the large Australian earthworm originally described by the late Professor McCoy of Melbourne, and later by his successor in the chair, Professor Baldwin Spencer, as "macroscelides." He should of course have written megascolides, for macroscelides is an insectivorous mammal.

The Town Child. By R. A. BRAY. Revised edition. London: T. Fisher Unwin. 1911. Pp. 255. Price 3*s.* 6*d.*

IT is little surprising that a second edition of this book has been called for. It deals with one of the chief problems of the age, perhaps the chief—the education, physical, intellectual, and moral, of the child, the State's citizen in embryo. Few people have had better opportunities of watching the "growing child" than Mr. Bray, for he has lived for many years among school children and in schools; he is well equipped, therefore, with the necessary experience. But even more important than this experience for the making of a good book is his lucidity of style. Mr. Bray thinks clearly and writes clearly. Although there is a great deal in "The Town Child" that by no feat of legerdemain can be directed into the service of medicine, none the less there are many chapters that may be read with undoubted advantage by the school medical officer, and indeed by others of our profession who are concerned with the supervision of the health of children.

As the author fully explains, the environment of the town child is human and psychological, differing thus fundamentally from that of the country child, whose environment is that of trees and flowers and vegetables and animals. And since our health, like our diseases, must depend much on environment, it is a matter of the greatest importance for the medical man to study the true relations in the matter.

In Part I. Mr. Bray deals with the problem of the town, the environment of man, and man and the environment. In Part II. he describes the needs of education, social and religious, of the school child, but the medical reader will probably direct his chief attention to those sections which are concerned with the physical well-being of the child. There is no part of the book that is more worthy of attention than that concerned with the establishment of habits; in a physiological sense medical men realise the importance and significance of habits, but as regards their wider significance they would do well to study the canons laid down by the author for their better establishment. "First," he says, "we want habits, because habits alone render tolerable the drudgery and the routine of life and secure stability of character. Looking at the life of the town child and taking into account the influence of the environment, we need chiefly habits of regularity, habits of attention, habits of order, habits of self-control, and habits of cleanliness, using the last term in its widest significance." Mr. Bray has made an honest attempt to indicate how the attainment of these much needed elements in character can be secured through the instrumentality of our educational machinery.

"The Town Child" is altogether an inspiriting work.

Theorie und Praxis der Inneren Medizin. Ein Lehrbuch für Studierende und Aerzte. Von Dr. ERICH KINDBORG in Bonn. Erster Band. *Die Krankheiten der Zirkulations- und Respirationsorgane.* Mit 47 abbildungen. Berlin: S. Karger. 1911. Pp. 404. Price, bound, 7 marks.

Dr. Kindborg gives as his apologia for adding another to the numerous text-books of medicine the fact that he has found that the student often finds difficulty in grasping some of the problems of medicine because he has not available the necessary information afforded by the ancillary medical sciences. He has therefore given in his descriptions of the diseases of which he treats such anatomical, physiological, pharmacological, and other information as may be necessary to explain the matters he is dealing with. These are generally given at the commencement of each section, and are printed in smaller type. Without being in any sense exhaustive they are of sufficient length to be of real value.

The subjects dealt with in this, the first, volume are diseases of the circulatory and respiratory systems. The classification followed by Dr. Kindborg is on conventional lines, but the descriptions he gives of the individual morbid conditions are by no means stereotyped. He writes clearly and well, and his subject-matter is both interesting and practical. We may mention his account of pulmonary tuberculosis as one of the best in the book. After a full description of the tubercle bacillus and its properties, the pathological and clinical features of the disease as it affects the lungs are given. The question of diagnosis by means of the various modifications of the tuberculin test is then discussed and the value of each indicated. In connexion with treatment, a critical and cautious review of the use of tuberculin is given, and due care is urged in regard to dosage and frequency of administration. In general, the sections devoted to treatment are the most exhaustive. Full directions are supplied in regard to the management of the patient, prescriptions are given, and, conforming to the fundamental

principle he had in view, Dr. Kindborg in recommending any drug describes its origin, chemical constitution, and general properties. Authorities are often quoted both in the text and in footnotes.

If the other volumes come up to the standard of the present one, Dr. Kindborg will have produced a valuable and interesting addition to the text-books on medicine.

Lateral Curvature of the Spine and Flat-foot and their Treatment by Exercises. By J. S. KELLETT SMITH, F.R.C.S. Eng.; late Demonstrator of Anatomy at University College, Liverpool. Bristol: John Wright and Sons, Limited; London: Simpkin, Marshall, Hamilton, Kent, and Co., Limited. 1911. Pp. 137. Price 5*s.* 6*d.* net.

IN the preface the author lays down very definitely the scope of his book: "Its chief object is to indicate in a clear and concise manner the steps necessary for the treatment of those cases of spinal curvature which are most likely to occur in general practice," leaving to more elaborate works on orthopædics the description of the high grade cases of scoliosis and the method of making and fitting mechanical supports. We may say at once that he has carried out this idea admirably.

The photographic illustrations are good and demonstrate very well the different exercises that are explained in the text. Mr. Kellett Smith gives in the first chapter an interesting extract from a work by Pierre Dionis, written in 1707, and he draws attention to the fact that until recently with little alteration and few additions the text would very well have done for a description of the treatment employed for lateral curvature at the present time. The last decade has seen the growth of systems of exercises without number, but recent teaching is tending in the right direction. It now condemns the old form of physical training, in which a pupil was introduced into a gymnasium and was taught dumb-bell, club, and bar-bell exercises, and was then left to roam at will amongst a profusion of apparatus, instead of each case of scoliosis being treated on its own merits and exercises being prescribed suited to the strength of the patient and to the correction of the deformity. A useful chapter deals with the general treatment which is likely to be required by subjects of spinal curvature.

This is eminently a book suited for the general practitioner wishful to treat the slighter forms of scoliosis or pes planus.

Les Syncinésies. Leurs Rapports avec les Fonctions d'Inhibition Motrice. By Dr. G. STROEHLIN, Ancien Interne des Hôpitaux de Paris. Paris: G. Steinheil. 1911. Pp. 148.

THE tendency which is characteristic of infancy to make movements bilateral and symmetrical gradually disappears under the influence of education and of the development of the motor paths, but under certain pathological conditions—e.g., infantile hemiplegia, adult hemiplegia—this primitive motor bilaterality reappears and reveals itself by associated movements. These, as a rule, cannot be repressed or diminished by voluntary effort; they are seen only on voluntary muscular activity, and they are more pronounced on one side of the body than the other. Dr. Stroehlin supplies numerous personal observations of associated movements, and suggests an eclectic hypothesis, based on the well-known views of Hitzig and of Westphal, to account for the phenomena. The appearance of these synkineses depends on lesions of the pyramidal tract, and the author utilises a term coined by Dupré—"débilité motrice d'inhibition"—to express the symptoms by which this defect of the pyramidal system reveals itself. The syndrome consists of increase in the tendon reflexes, alteration of the plantar reflex, awkwardness of voluntary movement, paratonus, and synkinesis or associated movement. A bibliography is appended to the thesis.

LIBRARY TABLE.

On Variations in Chromosomes. By CHARLES EDWARD WALKER. A Reprint from the *Archiv für Zellforschung*, Band 6, Heft 4. Leipsic: W. Engelmann. 1911.—This paper records a series of interesting observations on the variations in shape and size of "chromosomes of an ordinary kind that are found in certain cells of the organism always, and not with a special form which is found only in the cells of particular animals and of individuals of one sex and not in those of individuals of the opposite sex." Previous observations bearing on this point have been mainly or wholly confined to cells in the last-named category. This paper must be read in close connexion with the author's book on "Hereditary Characters and their Modes of Transmission," which was noticed in THE LANCET of Dec. 3rd, 1910. In this work is suggested the theory that the chromosomes are the bearers of *individual* variations, while the cell as a whole is the bearer of *racial* traits. The author argues that if the establishment of the fact that chromosomes vary constantly in form and size be accomplished, then one step further towards the origin of variations is attained. It seems clear that more observations are wanted before this constant variation in form and size can be established. Should it be established, it would lend some additional colour to the author's hypothesis above referred to, but could not be held to prove it. His present position appears to be that he considers chromosomes *because* they vary to be the bearers of individual characters as opposed to racial; that he claims "Mendelian" characters as individual; and that he assumes that the *inheritance* of these, not the *reproduction* merely, is alternative. He therefore appears to think that there is no *patency and latency*. In the summing-up of this paper the author's belief is reiterated that racial characters, that is, characters which are found in *all* the individuals forming a race of animals or plants, cannot be borne by individual chromosomes, because the chromosomes are distributed in an alternative manner to the gametes before fertilisation. He further emphasises the view that "constant and continual variations among chromosomes would account for the constant and continual variations that appear in animals and plants, without necessary recourse to the mutation theory and the assumption that variations occur only in epidemics at intervals, species only arising during these epidemics." This author's careful work as displayed in this paper will doubtless stimulate others to make further observations on the same lines.

Aus Theorie und Praxis der Chemotherapie. Von PAUL EHRLICH. Leipzig: Dr. Werner Klinkhardt. 1911. Pp. 28. Price 1.20 marks.—This is the address given to the Society for Microbiology at Dresden in May, 1911. It deals with Ehrlich's well-known theories regarding chemo-therapeutics, which the author has done so much to elucidate. It discusses the *rationale* of treatment of such diseases as trypanosomiasis, malaria, recurrent fever, and the use by injection of salvarsan, and how the untoward accidents that sometimes accompany its use can be avoided. The author is persuaded that the "intensive" treatment of syphilis in its early stage, according to the methods recommended by himself, adds enormously to permanent recovery. The address is dedicated in a graceful peroration to Professor Waldeyer, of Berlin, who greatly encouraged Ehrlich when the latter was a student under Waldeyer in Strasburg, nearly 40 years ago. It will be interesting to clinicians as well as to biologists.

New Reduction Methods in Volumetric Analysis. By EDMUND KNECHT, Ph.D., M.Sc.Tech., F.I.C., and EVA HIBBERT. London: Longmans, Green, and Co. 1910. Pp. 108. Price 3*s.* net.—The authors deserve a word of thanks for pointing out the practical advantages of using

titanium salts as reducing agents in analysis. Their application is evidently of value, and quite a surprising number of accurate determinations can be made by employing titanous chloride. The salt can be used, for example, as a quantitative reducing agent for metals and their compounds—e.g., iron, copper, tin, chromium; for non-metallic elements and their compounds—e.g., hydrogen peroxide, chlorates, nitrates, oxygen in water; and for organic compounds—e.g., nitro compounds, azo compounds, certain reducible dye stuffs giving colourless compounds, and sugars. The details of analytical work are set forth with clearness, and it is quite obvious that titanous chloride is a valuable material in the analytical laboratory.

JOURNALS AND MAGAZINES.

The Child.—The November issue contains an abstract of the paper on the Hygiene of School Life in Ireland, read before the Royal Sanitary Congress at Belfast, by Professor J. A. Lindsay. Emilia V. Kanthack de Voss discusses in an interesting manner child welfare in Germany. She refers to the modern crowding into towns (which she attributes mainly to "the increasing desire for entertainment and social excitement"), as leaving its mark on the physique and on the spirit of the working-classes. The training of children, home and school life, and training schools are dealt with, and stress is laid on the importance of home life and mother craft in the prevention of physical deterioration. Dr. R. J. Ewart discusses the "Aristocracy of Birth." He dwells on the modern subjection of the primitive attitude of mind—the prevalence of the social "don't" over the individual "do." Even the vital statistics, he says, tell us pessimistically how many per 1000 die, instead of more optimistically informing us how many per 1000 have survived. He uses the death statistics as a figure to subtract from the number living, so as to inquire into the conditions under which the best are born. He discusses the problems of birth under the following heads: (1) age of mother, (2) sequence of birth, (3) interval of birth, (4) season of year at which birth occurs, (5) sex of birth, (6) vague conditions pertaining to general health, included under the term environment, (7) accidental conditions, such as twins or other numerical abnormality, and (8) conditions of sentiment, as judged by illegitimacy. Winifred Brooks Mylechreest writes judiciously of story-telling, the art beloved of children, so necessary to their proper bringing up, yet so neglected. Dr. W. D. Carruthers discusses the school desk, and condemns the long desk with a considerable horizontal interval between the desk and the seat. He describes a dual desk, the seat of which is moveable, and is so divided that each child can move in and out independently of the other, or one may stand while the other sits. Mr. E. D. Telford discusses residential schools for crippled children, on the basis of that instituted in 1905 by the Manchester Education Committee. It has been in existence for six years, and 115 cases have been discharged, with the following results: cured 57, improved 17, discharged unrelieved 33, discharged on time limit 8. The editor of the *Boys' Own Paper* relates its history. Miss Lillias Hamilton, warden of the Studley Agricultural and Horticultural College for Women, gives an illustrated description of that institution. Mr. H. J. Eason furnishes an account of the Manchester Children's Hospital, and Dr. F. E. Batten a summary of what is known of acute poliomyelitis. Various societies are described by their secretaries, and Cheltenham and its educational facilities by Mr. Edward F. Burrow.

The North of England Clinical Journal. The Organ of the Newcastle-upon-Tyne Clinical Society. Edited for the Editorial Committee by Mr. GEORGE FOGGIN, 24, Eldon-square, Newcastle-upon-Tyne. Vol. I., No. 2. September, 1911. Price 1*s.*—The second number of this new journal contains a paper by Dr. J. S. Risien Russell on Important Problems in the Diagnosis of Diseases of the Nervous System. It consists of a practical discourse for men in general practice on everyday problems with which all are liable to be confronted. Dr. R. E. Sedgwick contributes a paper on that bold buccaneer, Dr. Thomas Dover, which adds some features of interest that we do not recall having seen in other articles on the same subject. The late Mr. T. G. Ouston discusses the uses of radium in diseases of the nose and throat. The article is followed by an obituary notice of its author, who died on August 4th. Dr. Harold Kerr gives some public health notes, and Mr. John Clay discusses approvingly the use of indigo carmine in cystoscopy. Dr. T. M. Allison has a note on the Infectivity of Actinomycosis. Clinical reports, reviews, and notices conclude the number.

Man.—The November number of this journal contains a copiously illustrated article by Dr. C. G. Seligmann and Miss Margaret Murray on a hitherto unexplained standard pictorially represented in Upper Egypt. They argue that the object, or emblem, which surmounts the standard is an idealised figure of the placenta concerned in the antenatal life of the king before whom this particular standard was eventually carried.

Reports and Analytical Records
FROM
THE LANCET LABORATORY.

CHOLOGESTIN.

(THOMAS CHRISTY AND CO., 4, 10, & 12, OLD SWAN-LANE, UPPER THAMES-STREET, LONDON, E.C.)

CHOLOGESTIN is described as "a peculiarly eligible method of administering the natural bile acid salt and pancreatin in palatable liquid form, in conditions attended with intestinal putrefaction, auto-toxæmia, and indicanuria." We have confirmed the presence of the active constituents—viz., glycocholic acid and pancreatin. In alkaline solution the preparation showed a marked digestive action upon beef fibre, while a very definite reaction was obtained with Pettenkofer's reagent for biliary acids (glucose dissolved in strong sulphuric acid). Sodium salicylate was also easily detected. Chologestin occurs in the form of a palatable alcoholic fluid (15 per cent.), or in tablets, three of which contain the active medicinal ingredients of one tablespoonful of chologestin. The claims of chologestin merit attention.

"HEALTH AND STRENGTH" COCOA.

(SANDOW, LIMITED, 5 TO 21, NEW KENT-ROAD, ELEPHANT AND CASTLE, S.E.)

Sandow, Limited, as far as the public is concerned, means Mr. Eugen Sandow, and this gentleman has for some time past been engaged in an undertaking which has not commended itself to the medical profession for perfectly obvious reasons. We have been asked by Mr. Sandow to examine and to report upon this cocoa, and in the public interest we do not feel justified in refusing the invitation. We should certainly decline to give publicity to any undertaking in which, as it seemed to us, Mr. Sandow was posing as the possessor of medical knowledge, or in which he seemed to be making an illegitimate use of qualified medical assistance. But because Mr. Sandow's methods in connexion with the cultivation of "physical health" have been so rightly reprobated by all medical men—an attitude that has been endorsed by the General Medical Council—it would not be right to refuse to analyse a foodstuff connected with his name which has been offered to the public. If THE LANCET is to

keep consistently to its attempt to act as an interpreter of the merits and demerits of the public food-supply, we must not allow disinclination of any sort to deter us from making any analysis that the public good demands. Mr. Sandow has been making some very large claims on behalf of this particular cocoa in the public press: it will be seen from the analysis which follows how far they can be substantiated.

The cocoa on analysis gave the following results: Moisture, 5·0 per cent.; mineral matter, 8·10 per cent.; proteins, 25·84 per cent. (equal to nitrogen 4·10 per cent.); fat, 14·76 per cent.; theobromine, 1·34 per cent.; alkalinity of the ash calculated as potash (K_2O), 2·82 per cent. In THE LANCET of Jan. 7th, 1905, a contribution from our laboratory was published on cocoa, which contained the results of analysis made of the various cocoas upon the market. The following ranges in composition were shown: Moisture, 3·0 per cent. to 8·0 per cent.; nitrogenous matter (N × 6·3), 19·0 per cent. to 20·0 per cent.; fat, 26·0 per cent. to 31·0 per cent.; mineral matter, 3·90 per cent. to 8·80 per cent.; theobromine, 1·7 per cent. to 2·0 per cent. By comparing these figures with those obtained with "Health and Strength" cocoa the basis of its claims compared with other cocoas will be understood. It contains, for example, a good deal less fat and an increased proportion of proteins calculated upon the total nitrogen found. It will be also noted that the mineral matter amounts to much the same as that contained in Dutch cocoas, in which it is admitted that certain salts are used with the object of preventing sediment in the cup. The cocoa is thus more "soluble," that term really meaning that the cocoa is kept permanently suspended in the cup, as a very small proportion of the cocoa is really soluble. One important feature, however, of "Health and Strength" cocoa is that it is an extremely finely ground powder, having, in fact, the fineness of flour. This, of course, is a dietetic advantage. To sum up, "Health and Strength" cocoa differs from most other cocoas in having its nitrogenous constituents increased by the further elimination of fat, and a special method of preparation is adopted by which the cocoa is reduced to an impalpably fine powder.

ANNUAL REPORT FOR 1909 OF THE REGISTRAR-GENERAL FOR SCOTLAND.

THE fifty-fifth report of the Scottish Registrar General, which has recently been issued by H. M. Stationery Office, contains the usual particulars concerning marriages, births, and deaths during the year 1909, but the tabular matter is prefaced by a useful introduction by Dr. J. Craufurd Dunlop, the medical superintendent of statistics, and it is to this part of the volume that we now propose to direct attention.

The circumstance that considerable delay ordinarily takes place in the issue of the Scottish reports is acknowledged and accounted for in a prefatory note, which explains that as the abstraction of the facts cannot be completed until the expiration of 12 months after the registers are closed, the detailed annual report cannot be issued sooner than 18 months after the close of the year to which it relates.

Recent enumeration of population.—In April last the twelfth Census of Scotland was taken, and since that date the preliminary Census report has been published. The use of the recent population returns in the preparation of the present report has enabled the vital statistics of the year to be presented with greatly increased confidence. A prominent feature of these statistics is the lowness of the rates of marriage, birth, and death, as well as of infant mortality. The birth-rate, the death-rate, and the infant mortality-rate were in each case the lowest on record, and with the exception of that of the years 1886 and 1887 the marriage-rate of 1909 attained its lowest point.

Declining birth-rate.—Calculated on the revised population estimate, the Scottish birth-rate averaged 27·33 per 1000 living, which is the lowest rate hitherto recorded, and is lower by 1·63 than the mean rate in the preceding decennium. The birth-rate of Scotland was above that of England by 1·7 per 1000, and above that of Ireland by 3·8 per 1000. In the principal towns the birth-rate ranged from 37·9 per 1000 in Motherwell and 36·7 in Hamilton, to 25·9 in Kilmarnock. In some of the counties the rate was very low; it did not exceed 18·4 in Selkirk, 17·3 in Bute, or 17·2 in Orkney. The illegimate birth-rate, expressed in terms of unmarried and widowed women between the ages of 15 and 45, averaged 14·1 per 1000, and varied from 29·6 in Banff, and 24·3 in Wigtown, to 8·2 in Renfrew and 7·2 in Orkney.

Reduced mortality.—The general death-rate of Scotland in 1909 was 15·85 per 1000, this being the first year on record in which the rate had been below 16 per 1000. The rate was below the average of the preceding ten years by 1·29 per 1000. In the Scottish counties the crude or uncorrected death-rate ranged from 17·5 in Lanark to 11·3 in Peebles. The death-rates of the principal towns, corrected for age and sex differences of population, ranged from 21·6 in Glasgow and 19·7 in Dundee, to 13·4 in Motherwell and 12·8 in Partick.

Infantile mortality.—The deaths of infants in their first year of age were in the proportion of 108 per 1000 births, which is the lowest rate hitherto recorded, and is below the mean decennial rate by 12·8 per 1000. In the Scottish counties infant mortality ranged from 132 in Kinross, 124 in Lanark, 122 in Forfar, and 121 in Aberdeen, to 58 in Shetland, 53 in Sutherland, 49 in Peebles, and 48 in Argyll. In the principal towns infant mortality was still very high, being equal to 152 in Aberdeen, 145 in Dundee, and 133 in Glasgow.

Causes of death.—Of the total deaths registered during the year the causes were certified either by the medical attendant or by a procurator fiscal in all but 2·1 per cent. Letters of inquiry were addressed to medical certifiers in those cases where the causes were insufficiently described for purposes of classification. As a result we learn that of the deaths originally referred by classification in the certificates either to intestinal obstruction or to tumour or other indefinite cause, not fewer than 95 were eventually assigned in the registers to malignant disease. In addition to the foregoing much valuable information has been secured by means of these inquiries, and Dr. Dunlop gratefully acknowledges the coöperation of his medical brethren in this portion of his work.

Tuberculosis.—A satisfactory feature of the vital history of the year is the continued decline in the mortality from tuberculosis of all forms, as well as from tuberculous phthisis, the rates under both these headings being the lowest hitherto recorded. The death-rate in 1909 from all forms of tuberculous disease was 198 per 100,000 living, 128 of that number being due to phthisis. Previous to 1886 the Scottish death-rate from phthisis was always above 200. In 1887, for the first time, it fell below that figure, whilst in 1909, for the first time, it fell below 130. The male death-rate from this disease was 136 and the female rate 121. Of those dying from phthisis, 85 per cent. were between the ages of 15 and 60 years, whilst only 3 per cent. were below 5 years and only 6 per cent. above 60 years of age. Disregarding sex, phthisis mortality ranged from 146 per 100,000 in the insular-rural districts to 117 in the small town districts. Among the principal towns phthisis was fatal in the proportion of 176 per 100,000 in Dundee, 152 in Glasgow, and 145 in Paisley, whilst it was fatal to 89 only in Partick, 73 in Motherwell, and 58 in Kirkcaldy.

Epidemic disease.—Comparing the death-rates from the principal epidemic diseases in the year under notice with the corresponding rates of former years, we note that the marked difference between the deaths from "fevers" in 1909 and those in the three years immediately preceding is largely due to the subsidence of the epidemic of cerebro-spinal fever which prevailed in those years. Typhus fever seems still to linger in certain parts of Scotland, as appears from the fact that 26 deaths from that disease occurred in the course of the year under notice, a number which exceeds the quinquennial average by 8. The increase of these deaths was due to an epidemic in the fever hospital at Greenock, in which town 16 of the 26 deaths took place. The mortality from enteric fever did not differ greatly from the quinquennial average and was equivalent to a rate of 6 per 100,000 living. The mortality from scarlet fever and from diphtheria was relatively high and that from measles and diarrhœa relatively low. The death-rate from malignant disease was higher than in any previous year, and for the first time exceeded 100 per 100,000 of the population. The mortality from pneumonia and from bronchitis scarcely differed from the normal.

A chapter on the influence of weather on mortality concludes this very instructive report.

THE LANCET.

LONDON: SATURDAY, NOVEMBER 25, 1911.

The National Insurance Bill.

As we go to press a special meeting of the Representatives of the British Medical Association is being held in London to which a report of the Council of the Association upon the National Insurance Bill has been submitted. The meeting had its origin in a resolution passed at the annual meeting of Representatives at Birmingham which provided that, upon the completion of the Committee stage of the National Insurance Bill, the Council of the Association should issue to the divisions a report upon the position under the Bill as amended, and should convene as soon thereafter as practicable a special meeting of Representatives to consider the matter. Remembering the position in which the Bill now stands after the treatment which it has received since the summer meeting of the British Medical Association, we may take it for granted that the proceedings of the meeting now being held will be arduous, protracted, and important. For the Representatives are placed, in considering the particular sections of the Bill which affect most closely the medical profession, in exactly the plight of every class of the population in considering those clauses of the Bill in which they believe themselves to have important concern. They must feel in doubt of their ground. Since the Representatives last had the Bill under discussion a large number of complicated amendments have changed the face of the document in many essentials as well as in countless details, while the procedure which has been adopted in Committee of the House for dealing with these amendments has not allowed of adequate discussion. The very meaning of some of the clauses which the Representatives are considering has not been threshed out, much less has their bearing on life, when the Bill becomes law, had adequate consideration. The report which has been submitted by the Council of the Association is confidential while we write, though its bearings will probably have become public property by the end of the week. Even if we felt ourselves at liberty to comment on this report in the favourable terms which we should certainly be moved to do, it is our duty to respect the fact that the document is still confidential, while no public service would be rendered, at a time when all medical men are agreed in attempting to find a unanimous course of action, by any interjections during the meeting of the Representatives of the British Medical Association.

The essential position remains unchanged and was well shown at an enthusiastic meeting of the medical profession held in Manchester on Saturday last, Nov. 18th, when the following resolution was unanimously carried:—

> That in the opinion of this meeting the National Insurance Bill as at present framed does not satisfactorily embody the demands of the medical profession, as defined in the "six cardinal points" formulated by the British Medical Association; that the scheme of the Bill in its present form is unworkable, and will create a condition of affairs not only detrimental to the medical profession, but also dangerous to the public health—therefore, this meeting of the medical profession of Lancashire and Cheshire expresses its determination, in the event of the Bill becoming law in its present form, to unite with the whole of the profession in declaring its inability to undertake the duties which the Bill proposes to assign to it.

This resolution is the deliberate opinion of a large mass of medical men who were determined, before it was too late, to register their opposition to the Bill and their dissatisfaction with the course of the negotiations that had taken place, and, in short and in their own words, who felt "that the scheme of the Bill in its present form is unworkable." The meeting, as Dr. E. S. REYNOLDS in moving the above resolution pointed out, was in no way antagonistic to the British Medical Association, but would strengthen that body in proceedings the value of which had been so fully recognised by all; and with every word of Dr. REYNOLD'S stirring but well-reasoned speech we are in complete accord. In this Bill for national insurance against sickness and invalidity provisions are introduced completely revolutionising the professional, and perhaps the scientific, position of a body of men without whose coöperation the word insurance means nothing at all. Immediately upon the text of the Bill being available the facts were made clear to the Chancellor of the Exchequer by the solid opinion of the medical profession, reinforced by the acquiescence of thinking men and women not medical practitioners and having only one thing in common—personal acquaintance with the conditions of medical practice, including those of medical and scientific education and of hospital administration. As one result of this general feeling that the Bill, however noble in intention, was bad in many of its provisions, six cardinal points upon which amendment was required were submitted to the Chancellor by the British Medical Association. No adequate reply from the Chancellor has resulted. We do not suggest that no concessions have been made in respect of certain of the six points, but the value of the concessions has been minimised by future amendments to an extent which was probably beyond the appreciation of Parliament owing to the pace at which the business in Committee has been conducted and to its complicated nature.

Dr. G. A. GIBSON points out in an eloquent address on the Medical Aspects of Some Social Questions, which we publish in another column, that criticism of the National Insurance Bill is rendered difficult by the sympathy which all medical men must have for most of its declared aims. This it was which led medical men with the rest of the country, upon the introduction of the Bill, to welcome it as an attempt to lead a large proportion of our population to make provision against the accidents of life, a provision which, as Dr. GIBSON says, has notoriously been left unmade in the past. But anyhow the time for criticism of the Bill has gone by and the hour has arrived when medical men must make up their minds whether they will or will not assist in carrying out the Chancellor's scheme. No medical man who opposes this scheme need feel that he is standing in the way of social progress for selfish reasons; he can still remain, what the medical man has always been and must always be, an ardent advocate of every movement that will lighten the

tax upon our population of sickness and invalidity, that will bring solace to the suffering, and security to the workman. Generations after generations of medical men, in a manner which has fallen to the lot of no other body of our community, have shown by actions, not by words, the self-sacrificing pleasure and unremitting zeal with which they attempt to deal with the evils that are designed to be removed by this Bill. Men of such a temper do not change. Our high ideals remain as high, and because this is the case we are bound to set our faces against a measure which, as it stands, does not give to the individual efforts of medical men a common principle by which they can abide. The Bill appears bound in its present state to lead to a deterioration of medical practice, to a falling off from our scientific standards, and to grave interference with medical charities.

Compulsory Notification of Pulmonary Tuberculosis.

IN 1908 the Local Government Board issued regulations rendering compulsory the notification of all cases of pulmonary tuberculosis occurring amongst the inmates of Poor-law institutions or amongst persons under the care of district medical officers. In March of this year further regulations were made extending the system of notification to cases occurring amongst the in-patients or out-patients at hospitals, or other similar institutions for the treatment of the sick, which are supported wholly or partially otherwise than by the contributions of the patients and otherwise than from rates and taxes. The results obtained by these regulations have evidently proved satisfactory in the opinion of those who are able to judge of the working of compulsory notification amongst the classes of patients involved, for new regulations have now been issued completing the system of notification. Hereafter it will be the duty of every medical practitioner, with certain exceptions specified in the regulations, to notify every case of pulmonary tuberculosis occurring in the course either of his public or of his private practice.

The primary object which the Local Government Board has in view in requiring compulsory notification of every case of pulmonary tuberculosis is to enable the local authority to assist in the eradication of the disease, and in a circular letter accompanying the regulations the Board offers certain observations as to the ways in which local authorities can render such assistance. Under the powers of previous Public Health Acts these authorities may either themselves provide sanatoriums or may contract for the use of such institutions. Now the Board has been advised that these powers also enable a local authority to provide or contract for the use of dispensary or out-patient hospitals. Before providing new institutions, it is to be hoped that the charitable institutions already existing in the form of tuberculosis dispensaries will be communicated with; the experience already gained by the officers of these institutions would be of the greatest value, and multiplication of centres is not to be advised. At the same time caution must be exercised not to exploit the services of the honorary staffs of the hospitals, whose duties are already sufficiently heavy. Under the regulations issued in March last some confusion existed as to the procedure to be adopted when a patient suffering from pulmonary tuberculosis passed from one hospital to another, or even from the out-patient department to the wards of the same hospital, as to whether further notification was necessary. In the new regulations this matter is very clearly defined, for the words occur: "..... a medical practitioner shall not be required under these regulations to notify any case of pulmonary tuberculosis which has already to his knowledge, under these regulations or under the Poor-law regulations or under the hospital regulations, been notified to the medical officer of health for the area within which the place of residence of the patient is situate." Useful information is given by the Board as to the limitation of the scope of the regulations. Nothing in the regulations, we learn, shall apply to, or impose any duty or obligation upon, any medical practitioner acting in his capacity as medical examiner of candidates for some office or appointment as medical examiner on behalf of an insurance company of a person proposing to insure his life at the risk of that company, or as medical examiner of the passengers and crew of an emigrant ship. These are wise and prudent exceptions, and being so clearly stated will relieve the responsibilities of practitioners acting under the conditions named. Another important article to which we would draw attention is one compelling every medical practitioner who is a school medical inspector within the period of 48 hours after he has inspected any children attending a public elementary school to complete and sign a notification of all cases of pulmonary tuberculosis of which he became aware during the course of the inspection.

We have mentioned on other occasions the apprehensions which have been expressed of certain hardships which might ensue to individuals as the result of their notification as being the sufferers of a disease so infectious as to require notification, but at the same time we remarked[1] that should the benefits derived outweigh the drawbacks, a far-reaching prophylactic measure will have been established. We have every reason to believe that the views of the Local Government Board have been faithfully carried out at the various institutions coming under the force of the regulations which commenced on May 1st of this year, and we are not aware that any of the personal inconveniences feared have been experienced. All information of this nature imparted to the medical officer of health is, of course, of a strictly confidential nature, and if detrimental knowledge has been conveyed to other quarters, such as the patient's employer, that he is the sufferer from an infectious disease, it would be from other sources than the practitioner or medical officer of health. We are glad to notice that in the circular letter accompanying the new regulations stress is laid by the Board on the fact that the ability to convey infection on the part of patients afflicted with pulmonary tuberculosis is limited and intermittent, and that infection can be prevented by the patient himself when he has learnt and is not too ill to practise elementary precautions. We endorse the statement that the patient may be trained, and may, as a result, cease to be a source of infection, in which case he need be subjected to no disability; therefore we again strongly uphold the contention which we have so often expressed that education must occupy an important place in the campaign against this disease. If

[1] THE LANCET, April 8th, 1911.

by means of compulsory notification patients can be visited by those who are experts in hygiene and sanitary matters, so that they and their surroundings can be fully and satisfactorily controlled and improved, then these regulations will be of true value in helping to stamp out a malady which has already shown such a great diminution in incidence since hygienic improvements have been enforced by law. We may add that the new regulations come into force on Jan. 1st of next year.

Annotations.

"Ne quid nimis."

GUARDIANS AND POOR-LAW REFORM.

WE have had forwarded for our inspection a copy of a memorial from 121 guardians and ex-guardians of the poor presented recently to the President of the Local Government Board. The signatories, who are of both sexes, and who have gained their practical experience in urban and rural unions in all parts of England, are persons whose position, knowledge of their subject, and proved interest in Poor-law administration would alone command respect for their observations, while the matter of their memorial is of considerable importance. It makes no absolutely new proposal, but serves rather as a reminder that the report of the Royal Commission on the Poor-laws and Relief of Distress was issued in 1909 by the majority of a Royal Commission appointed in 1905; that an alternative scheme was propounded by a minority of that Commission who were able to command no less attention for their recommendations than did their far more numerous colleagues; and that no legislative result has followed the reports of either. We are also reminded that Mr. Charles Booth, a Commissioner whose name carries the greatest weight in such matters, unable to take part in the final deliberations of the Commission, propounded yet a third scheme with regard to the question of administration and organisation, advising the grouping of existing unions upon principles which he laid down and the utilisation of existing machinery for carrying out the work of relieving destitution, without those features of the present system which both Majority and Minority agreed in condemning. The memorialists in the present case have evidently in view the scheme of Mr. Booth, and while admitting that the demand for reform is urgent, refuse to admit that a drastic change of areas or the destruction of the present authorities advocated in both Majority and Minority Reports is either necessary or desirable. Their complaint is that shortcomings have been laid at the door of the guardians, the blame for which should at least be shared by the central authority controlling them, and that no fresh principles for their guidance have even now been laid down either by that authority or by Parliament. They ask that questions of principle should take precedence of questions of machinery, and advise that the latter should be deferred until the principles upon which the work is to be done shall have been definitely ascertained. They suggest not unreasonably that any new machinery may in itself be a source of confusion and difficulty in addition to the fact that it will be expected to carry out new measures. They say in effect, "If there is anything new to be done, why do you not tell the guardians what it is and authorise them to do it? Then if you find they are not competent you can appoint an alternative authority to supplement them, but as the matter stands you have not even definitely imposed a policy of universal application with regard to out-relief; you have not done anything with regard to the general mixed workhouse (which you can do by enabling unions to combine and coöperate), and instead of codifying the law which the guardians are still administering, and which they seem likely to continue to administer, you leave for their only guidance a mass of statutes and orders, cumbrous, antiquated, and self-contradictory, which is responsible for much of the confusion of principles that lies at the root of the present difficulty." The points which we have thus summarised are well worth the consideration of those to whom they are addressed. There is an old saying as to threatened men living long. It is possible that the sentence pronounced upon the Poor-law guardians by the Royal Commission will not be carried out, for its execution has now been long postponed. If, however, we carry the analogy further, we must urge that the reprieved convict in justice should be given full opportunity for reform and for leading a better life. The guardians have a just cause of complaint as long as defects in the system which they administer are made a subject of public contempt without their being directed or even empowered to remedy them by the central authority responsible for their guidance.

LICKING STAMPS.

IN an age which has reached high sanitary standards with an obvious improvement in the public health, the licking of stamps is a retrograde proceeding, and any suggestion calculated materially to encourage or increase the habit is open to strong condemnation. The habit is opposed to a common sense of cleanliness, let alone what bacteriological requirements may teach. The speed of modern life, it is to be feared, forces upon us the breaking of many sanitary commandments, and hygienic considerations are made to retire in favour of methods of convenience and despatch. The adhesive stamp is a sanitary blunder, but it is a business convenience for which it is hard to suggest an alternative. No persons need lick a stamp if they seriously make up their minds never to do so, but unfortunately the use of stamps has created a habit which, once contracted, is difficult to avoid. The habit of licking stamps is, in fact, practically universal, and few people consider it an offence against good manners. There are several devices which are intended to obviate the licking of a stamp, but their adoption is comparatively rare. It is surprising to us that the resources of the inventor have not suggested something fulfilling the office of a stamp, but not open to hygienic objections. We are prompted to raise these considerations in view of the provision in the National Insurance Bill which requires the servant and master weekly to affix a certain number of stamps to a card which is left for the inspector to examine. It is fairly certain that the process of attachment will generally be done by licking the stamp. It is no defence to say that already, apart from this new legislative requirement forced upon the household, people are confirmed in the objectionable habit. The proposal obviously broadens the chances of disease being spread in this way, and definite cases of disease have been traced to it. It will be interesting to learn the medical officer's attitude when he finds cards of licked stamps in the houses in which there is infectious disease. No one can deny the extreme convenience and ease of collecting a tax in this way, but there are clearly grave objections to it upon the score of health preservation; and until it is shown that the habit of licking the stamp has died out the objection will always remain, whatever political party it may be which encourages it. Licking envelopes is equally objectionable, and it is time that

human ingenuity found a convenient way of sealing a paper cover or of attaching a stamp which shall not require the aid of the saliva.

THE NORMAN KERR MEMORIAL LECTURE.

UNDER the auspices of the Society for the Study of Inebriety, the fourth Norman Kerr Memorial Lecture was delivered on Nov. 14th in the lecture theatre of the pathological department, Medical Schools, Cambridge. The President of the society, Dr. T. B. Hyslop, was in the chair. The lecturer, Professor G. Sims Woodhead, took as his subject "The Influence of Alcohol on Body Temperature and on the Heart." In commencing his lecture Professor Woodhead pointed out the propriety of the arrangement that the Society for the Study of Inebriety should take charge of a memorial lecture given in honour of the late Dr. Norman Kerr. The society was founded by Dr. Kerr in 1884, and presided over by him until the day of his death. He had, by his researches and writings, taken a very prominent part in calling attention to the need for study of the physical ills resulting from the immoderate use of alcohol. Along with his friend, Sir Benjamin Ward Richardson, Dr. J. J. Ridge, and other workers, he had striven most earnestly and assiduously to place knowledge of the effects of alcohol on the human body on a more satisfactory basis than any on which it had hitherto rested. His was early pioneer work; but all of it was honest, and much of it had stood the test of time and experience. One of the great claims that could be made for him was that he endeavoured to indicate lines along which further researches might be made; and, whatever might be the ultimate finding of physiologists in regard to what may be called "physiological doses" of alcohol, there could be now little difference of opinion as to the action of excessive doses of alcohol in preparing for, initiating, and fomenting disease. The lecturer pointed out that the three former Norman Kerr Memorial lecturers had broken away from the usual method of experimentation and had tried to eliminate subjective phenomena, those phenomena dependent upon the psychical or mental condition of the patient; and he, turning his mind to some line of work in which the evidence might be simply objective, had decided to follow up, if possible, the action of alcohol upon the heart as recorded by the electrocardiographic method. After giving an account of Waller's and Einthoven's work, and pointing out some of the difficulties associated with the method of investigation, he described some experiments carried out upon himself, indicated some of the difficulties with which they were at once confronted, and then showed a series of tracings obtained after the exhibition of various drugs. The action of these drugs was tested, because they had to look upon alcohol as a drug of unknown physiological action, and before they could accept records as indicating any special kind of alteration in the heart they must have records of changes brought about by drugs that had a very definite and well-recognised physiological action. Indeed, although he and Dr. F. Shillington Scales had obtained certain features in the alcoholic record that distinguished it from the non-alcoholic, he was not at present prepared to place too much stress upon this difference or to attempt to interpret its exact significance. Still, bearing in mind the fact that those who had wide experience maintained that the cardiogram of any person was almost as characteristic as were his finger-prints, any deviation from the normal, however slight, might possibly have to be accepted as an indication of well-marked altered conditions. The lecturer then described the late Dr. Arthur Gamgee's apparatus for obtaining continuous records of the temperature of the body, both surface and internal. He pointed out what an immense amount of ingenuity had been put into this apparatus, and regretted deeply that Dr. Gamgee had not lived to finish his experiments, which promised to be of enormous value to the study of disease. He referred also to the admirable work done in this country by Professor Callender and the Cambridge Scientific Instrument Company, and by Messrs. Siemens in Germany. He then threw on to the screen a number of tracings obtained from individuals who had taken some half ounce (15 c.c.) of absolute alcohol. He showed three pairs of curves in which the surface and rectal temperatures were taken at the same time—before, during, and after this dose of alcohol had been administered. In each case there was a distinct rise of the surface temperature as taken in the axilla, and a simultaneous and distinct fall of the visceral temperature. This was interesting, because in the same series of records taken for periods of 24 hours there was, when food was taken, a fall of the surface temperature and a simultaneous rise of the visceral temperature. When hot fluids were taken there was, however, a sudden rise of the surface temperature and an equally sudden rise of the visceral temperature. This, however, in both cases was of short duration. The lecturer pointed out the difficulties that had attended his earlier experiments, and said that whilst perfectly satisfied with some of the results obtained, he should, of course, repeat the whole of the series on a much extended scale. He thought, however, that these were sufficiently interesting to place before the society in this lecture.

THE ETIOLOGY OF OCCUPATION NEUROSIS AND OCCUPATION NEURITIS.

IN the *Journal of Nervous and Mental Disease* for August Dr. W. E. Paul, of Boston, U.S.A., discusses the vexed question of the etiology of the occupation neuroses, and avows himself a staunch supporter of the peripheral theory of their causation. The generally accepted view of their dependence on central—i.e., cortical—disturbance of function is based apparently on the occurrence of cases in which the neurosis is strictly confined to the performance of a particular act. If writer's cramp be taken as an instance, it is only when the fingers pick up a pen or a pencil that the cramp appears; for all other movements or combinations of movements of the fingers, however delicate, muscular action remains unimpaired. Such cases, however, are rare compared with the number in which the defect of function has spread to the performance of more than one special act. The late Dr. Vivian Poore strongly combated the central theory, alleging that he had never seen the writer's cramp of the text-books in which failure of writing power is the sole symptom. In 60 out of 75 tabulated cases he noted loss of function other than writing. Dr. Paul has studied 200 cases of occupation neurosis from the out-patient department of the Massachusetts General Hospital with a view of learning the character of the symptoms and thereby making inferences bearing on the etiology. In no fewer than 177 cases pain is specifically referred to; it was often severe and interfered with sleep. In 72 cases the pain was referred to joints, the shoulder, elbow, and wrist joints being those mainly affected. In only four of the 200 cases did the symptoms point to involvement of any of the main nerves of the limb. It may therefore be said that the preponderance of the pain symptoms is on muscles, joints, and regions near joints, their association with definite peripheral nerves being minimal. Now, if there is an increase in subfascial pressure during muscular contraction, varying with

the duration and power of that contraction, it is quite conceivable that the mechanical effect on the included nerve structures may be, under certain conditions, injurious. Further, the pull on tendons, fasciæ, and ligaments during muscular action may again, under certain conditions, produce mechanical disturbance of nerve function. The sensations of aching, numbness, stiffness, and fatigue that accompany these neuroses, the disagreeableness of which to the patient is out of all proportion to the vagueness of his description, may very well be associated with implication of minute nerves in some of these ways. Dr. Paul does well in calling attention to cases diagnosed as occupation neurosis where the existence of actual mechanical pressure on nerves has been established by rad ography or otherwise. Poore quotes a case diagnosed as writer's cramp in which the symptoms were found to have been occasioned by the pressure on certain nerves of a small aneurysm. Dr. Paul refers to a case of pianist's cramp treated as such for some months in which the patient was subsequently found by the X rays to have a needle buried in the hand. Reference was made a short time ago in these columns to a case of cramp in a typist and shorthand writer where the symptoms were associated with stretching of brachial nerves from an abnormal first rib. It is clear that all cases of occupation neurosis demand the fullest investigation from an objective standpoint ere they can be relegated to the category of neurosis of central origin.

EPSOM COLLEGE.

AN extraordinary general meeting of the Governors of Epsom College was held at the office, 37, Soho-square, W., on Nov. 15th, when the treasurer, Sir Henry Morris, occupied the chair. The object of the meeting was, as has already been announced in these columns, to consider a proposition to delete from By-law 16, Section 1, and from By-law 24, Section 2, the last clause, beginning in each case with the word "Provided," which limited the number of vacancies for pensioners and foundation scholars, occurring within a specified time, that could be filled up from the unselected candidates having the largest number of votes at the previous election. The two sections referred to read as follows:—

By-law 16.—(1) Every vacancy among the Pensioners which shal occur, or shall for the first time come to the knowledge of the Council after any meeting which shall have determined the number of vacancies to be filled up by election at the next Annual General Meeting, and before the expiration of three months after such election, shall, subject to the provisions of this By-law, be filled up by the appointment thereto of the unsuccessful candidate who had the largest number of votes at such election, and who shall not have been previously appointed to a Pension under this section, and every candidate so appointed to any such vacancy shall be deemed to have been elected thereto at the then last preceding election, but his Pension shall not commence until the date of his appointment: Provided that the number of vacancies filled up under this section after any one election shall not exceed three.

By-law 24.—(2) Every vacancy among Foundation Scholars which shall occur, or shall for the first time come to the knowledge of the Council after any meeting which shall have determined the number of vacancies to be filled up by election at the next Annual General Meeting, and before the expiration of four months after such election, shall be filled up by the appointment thereto of the unsuccessful candidate who had the largest number of votes at such election, and who shall not have been previously appointed to a Foundation Scholarship under this section, and every candidate so appointed to any such vacancy shall be deemed to have been elected thereto at the then last preceding election: Provided that the number of vacancies filled up under this section after any one election shall not exceed three.

The chairman stated that before the alteration of the by-laws 16 years ago all vacancies for pensionerships and foundation scholarships occurring within three months after the election could be filled by the admission of those unsuccessful candidates who had received the largest number of votes. Under the present by-laws, however, not more than three vacancies in each class could be so filled, the limit of the period after the election being three months in the case of pensioners and four months in the case of foundation scholars. As the pensioners were for the most part advanced in years it was exceedingly probable that a number of vacancies might occur between the date of the April council meeting, when the voting papers had to be printed, and three months after the annual general meeting, which is held about the end of June, whilst in the case of foundation scholars it was difficult for the head-master and the bursar to estimate so early as in April the number of boys who would be leaving the college within four months after the election. Moreover, when making appeals for subscriptions and donations the council had for many years stated that 50 pensioners and 50 foundation scholars were being maintained by the foundation. Consequently, if more than three vacancies in either class occurred the council were not, strictly speaking, keeping the promise held out to persons as an inducement to them to subscribe. If the proposed amendments in the by-laws were adopted by the Governors, the council would be enabled to insure that at the beginning of every school year there were on the books of the college the full numbers of 50 pensioners and 50 foundation scholars. The requisite resolution to the effect that the last 19 words be deleted from each section was then put to the meeting and unanimously carried, as might have been expected from the unanswerable arguments for the reform advanced by Sir Henry Morris.

THE VOLUNTARY AID DETACHMENTS FOR WAR TIME.

THE necessity for the formation of voluntary aid detachments for sick and wounded in time of war has been fully recognised by those who have seen the horrors of warfare. A scheme for the organisation of voluntary aid in England and Wales has been promulgated by the medical division of the War Office on lines suggested by Sir Alfred Keogh, formerly Director-General of the Army Medical Staff. It has been arranged on lines similar to those followed by certain foreign countries, where organisations for the relief of sick and wounded have reached a high standard of efficiency. The number of voluntary aid societies and associations which already exist, having no connexion with each other, leave them liable to act independently, with the result that their respective spheres of action might not be so coördinated and kept in touch with each other as to render their services of the greatest value in time of war. A county system has accordingly been adopted, because that is the one upon which the Territorial Force is organised and which the British Red Cross Society also has adopted as the basis of its constitution. Voluntary aid detachments, as organised in each county, comprise two classes—men's detachments and women's detachments. The men's detachment consists of a commandant, preferably a retired officer of the army not liable to recall, one medical officer, one quartermaster, one pharmacist, four section leaders, and 48 men, forming four sections of 12 men each. The women's detachment comprises a commandant (man or woman, not necessarily a doctor), one quartermaster (man or woman), one qualified nurse as lady superintendent, and 20 women, of whom four should be qualified as cooks. In the training of these detachments a practical knowledge of improvised methods of aid is an essential feature. The detachments will have no depôts of stores to draw upon in the event of mobilisation; all their requirements and equipment will have to be collected and, for the most part, improvised by the detachments themselves. Up to the present there has been considerable difficulty in the way of detachments acquiring information upon this subject, as no official or other handbook has existed dealing fully and systematically with such details in the English language. There are, of course, many handbooks on first-aid treatment, but these do not cover

the subject from the point of view of the present "Voluntary Aid Detachments," as organised by the War Office. To supply this want Lieutenant-Colonel H. Mackay has compiled a well-written, accurate, and concise little book entitled "Improvised Methods of Aid in the Field,"[1] based on recently delivered lectures to the Wiltshire No. 1 Voluntary Aid Detachment. It should be most helpful to the patriotic men and women who are giving their services to the country by joining the voluntary aid detachments, as well as to members of the Territorial Medical Service. The approval of Sir Alfred Keogh, as noted in the preface, is a strong recommendation. We can heartily commend any well-advised measure likely to stimulate patriotic enthusiasm directed towards the minimising of the due effects of war—which, as history shows, not infrequently breaks out when least expected.

THE OFFICIAL OINTMENTS.

A USEFUL paper on the official ointments was read at the October evening meeting of the Pharmaceutical Society. The authors, Mr. R. G. Guyer and Mr. W. T. Ewing, in the course of their observations, remarked that up to the present time no definite information had been published concerning the power of the skin in absorbing ointment bases. Dr. F. Gardiner, however, who has been working in the Research Laboratories of the Royal College of Physicians, Edinburgh, has made a study of the preparation of ointments, and allowed Mr. Guyer and Mr. Ewing to anticipate the publication of the full details of the experiments by utilising some of the results. In determining the relative penetrative power of various ointment bases, Dr. Gardiner's procedure was to rub the base, to which a dye had been added, into a given area of a guinea-pig, for a given length of time, and to kill the animal and make microscopical sections of the part. The degree of penetration was observed by the depth of staining on the hair-root, and Dr. Gardiner's observations show that olive oil is the most absorbable of the official substances, the others coming in the following order: benzoated lard, anhydrous wool fat, hydrous wool fat, and petroleum jelly. As showing the important place which ointments take in medical treatment, it may be mentioned that a recent survey of 4000 prescriptions gave evidence that practically 10 per cent. were for ointments only. In the practice of medicine ointments have undergone considerable change during the past few years; they are now seldom used for surgical purposes, but as a result of the development of dermatological medicine their use in this connexion has increased considerably. In a criticism of the various ointment bases the authors stated that olive oil and almond oil are very useful in preparing certain creamy bases, especially those which are to form a vehicle for an oleate, and also those cases in which absorption is of paramount importance. For general purposes, however, they are not to be recommended owing to their tendency to form fatty acids. Lard, although a most useful base for strictly emollient ointments, is receiving distinctly less and less support in dermatological practice owing to its tendency to irritate the skin, the irritation being due most probably to the production of fatty acids. Spermaceti is decreasing in use and is chiefly employed to give the finished article a crystalline appearance and to raise the melting point. As to the paraffin bases, the authors said that in many respects these were ideal, and wool fat has become established as a reliable and highly important ointment base. The demand for some of the official ointments, notably capsicum, eucalyptus, lead iodide, potassium iodide, lead carbonate, sulphur iodide, stavesacre, calomel, and red iodide of mercury, is very small, and the question may rightly be raised whether the retention of these ointments in the Pharmacopœia is justified.

[1] Improvised Methods of Aid in the Field. For the Use of Voluntary Aid Detachments and Members of the Territorial Royal Army Medical Corps. By H. Mackay, M.D., T.D., Lieutenant-Colonel R.A.M.C.T., Commanding 1st S.W. Mounted Brigade Field Ambulance R.A.M.C., London: Eyre and Spottiswoode, Limited. 1911. Pp. 112 + viii. With two diagrams in colours and 45 illustrations. Price 1*s.* 6*d.* net.

THE CHEMISTRY, PHYSIOLOGY, AND ÆSTHETICS OF A CUP OF TEA.

IN our next issue we propose publishing a concluding article upon this subject. Our readers may remember that a previous article was published in THE LANCET of Jan. 7th, 1911. In that article we announced that further researches were proceeding in our laboratory, the results of which would be published as soon as they were completed. A good deal of work has since been done, and the results are of interest. They refer to caffeine tannate as the therapeutically important constituent of tea infusion; the preparation and composition of caffeine tannate; caffeine tannate physiologically considered; the effect of over-infusing tea; blends, and the behaviour of tea with different waters. The report contains a description of the methods of analysis employed, which show a departure from the methods hitherto published, and which are regarded as being instrumental in throwing fresh light upon the question.

TRIBALISM AND QUACKERY.

IT is a commonplace to maintain that quackery is on the increase, but, on examination, this appears scarcely true. Quackery dates from pre-historic times, and is, indeed, a survival of the magic of the tribal medicine-man. Anciently, as anthropologists have pointed out, the tribe was dominated by medicine-men, who were, in some sort, the fount of priesthood, kingship, and the governing classes. At an early date the human conscience began to develop and the medicine-men themselves grew first honest, then honourable, and finally scientific. But quackery, which still dominates hosts of uneducated minds in all classes, is none the less a survival from the tribal condition. It savours of the days of lacustrine man. When, as in recent years, we may behold in what might be called the most cultivated part of London, a large shop window full of "rheumatic rings"[1] at 7*s.* 6*d.* each we exclaim against the increase of superstition. There is no increase evidenced, we are only looking at a comic survival. There was a long time in human development when rings were worn as amulets. Considerably more than 1000 rings have been recovered, for example, by antiquarians from the known Bronze Age settlements, and it would be at least rash to suppose that all these were merely worn as ornaments by a necessarily rough-handed generation of archaic men. Be that as it may, it is known that rings were regarded in the Middle Ages as having magical and protective powers. Tribalism, as we may call the tribal heredity of races accounted civilised, assuredly explains many disturbing phenomena. Certain classes are tribal, static, instinctively adherent to a remote social past, and this to a degree most perplexing to those reformers and educationists who believe that every class is potentially the same as every other class. In her delightful remarks upon "the simple savage and his simple life" Miss Beatrice Grimshaw ("The New New Guinea," 1910) says of the Papuan cannibal that "His medicine is sorcery pure and simple. He shuts out every breath of air from his hut if he can manage to do so, and washes only when he is caught out in the rain." Perhaps alone among

[1] In Paris "migraine rings."

modern travellers she insists on the personal filthiness of low savages. Now, filth and airlessness are flourishing traditions among those belated barbarians, the proletarians of Europe. Phthisis venereal disease, and, indeed, insect-borne and zymotic disease of every kind, are palpable relics of the airless and unwashing customs of savagery. Phthisis descends from the closed hut of the primitive man—it is still combated behind closed windows among primitive Celts. Venereal disease, spread, it may be, by the dissolute males of all classes, has certainly been nursed and incubated by the dissolute females of the classes that do not wash.

AN AVOIDABLE ACCIDENT DURING LUMBAR PUNCTURE.

IN the *Journal of the American Medical Association* of Oct. 14th Dr. W. F. Lorenz has reported a case of an avoidable accident during lumbar puncture—breaking of the needle by a movement of the patient. This he had long expected, but it did not happen until he had performed a large number of lumbar punctures. The patient was in the lateral position on the left side fully flexed. He was held in this position by an attendant with one arm beneath the patient's knees and the other about his neck. Ethyl chloride was used as a local anæsthetic. The puncture was made in the fourth lumbar interspace, just to the right of the median line, and close to the upper border of the fifth spinous process. The patient did not appear to heed the entrance of the needle, but when the point was in the neighbourhood of the canal he suddenly extended his back and the needle snapped, leaving four centimetres well below the cutaneous surface. He was immediately anæsthetised, and a search made for the needle without success. Three days later a skiagram was taken, and showed the needle lodged close to the upper border of the fifth lumbar spine. The patient was again anæsthetised, and the needle was easily removed. Dr. Lorenz points out that this accident can be prevented if means are taken to prevent a sudden extension on the part of the patient. For this purpose he now employs a light padded stick placed beneath the patient's knees which is attached by means of light straps to canvas bands coming over the shoulders and beneath the armpits. The bent knees can be drawn as close to the trunk as is desired, producing complete flexion of the spine. This is desirable for successful puncture. The appliance makes sudden extension on the part of the patient impossible. The difficulty in finding the fragment of needle, although its approximate position was known, is remarkable. This emphasises the help of skiagraphy, which showed the needle plainly in its relation to the spine as well as its depth below the cutaneous surface. The patient experienced no ill results from the presence of the fragment of needle; from the accident until the time of its removal he was up and about.

HUMIDITY AND HEALTH.

THOUGH many observations on the influence of humidity in disease are scattered throughout medicine and the subject has received special attention from climatologists, our knowledge of it is empirical rather than scientific. In its discussion we are confronted at the outset with the difficulty that humidity is used in two senses—absolute and relative. By absolute humidity is meant the amount of water in the air per cubic foot; by relative humidity, the percentage that this water is of the amount which the air can hold at the same temperature when saturated. The hotter the air the greater the amount of water required to saturate it. In the *Boston Medical and Surgical Journal* of Sept. 7th Dr. P. W. Goldsbury has published a suggestive paper on humidity and health. Though it is based on American conditions, climatic and domestic, which are very different from those of this country, his conclusions have a general application. He points out that air saturated with moisture at a temperature of 70° F. contains 8 grains of water to the cubic foot, while saturated air at 18° contains only 1 grain. Thus, if in winter with an atmospheric temperature of 18° saturated with moisture a flat be heated to a temperature of 70°, the air of the rooms, while having the same absolute humidity as the external air, will have a relative humidity of only one-eighth or 12½ per cent., as against 100 per cent. outside. Similarly, if the outside air contain half a grain of water to the cubic foot, and therefore has a relative humidity of 50°, the air of the rooms will have a relative humidity of 6¼ per cent. Now if it is remembered that a humidity of from 60° to 75° is none too much for the average conditions of human life, it will be realised how far different is the humidity of the air in which people are often housed in winter. Dr. Goldsbury finds that in schoolrooms, hospitals, and living rooms during winter the relative humidity is often below 40° and sometimes as low as 10°. Under such conditions indoor air is very dry and irritating. Dr. Goldsbury regards it as one of the prime causes of chapped hands and parched lips. To its injurious effect he ascribes the bad complexions of American women, while to the moister atmosphere and less indoor life he attributes the fresh complexion of English women. We may add that the still fresher complexion of Irish women who live in a still moister atmosphere bears out his contention. For the same reason the southern coast cities are famed in the United States for the complexions of their women. The problem of moistening heated indoor air so as to approximate its relative humidity to the more natural level of outdoor air has received little attention. Means to this end are growing plants, which give off a good deal of moisture from their leaves, porous vessels filled with water, and the placing of receptacles containing water over stoves or other sources of heat. It must not be forgotten that in some conditions, such as rheumatism, dryness of air, not humidity, is desirable.

THE TREATMENT OF INFANTILE PARALYSIS.

WE have received from Dr. William Mackenzie of Melbourne two pamphlets[1] dealing with the treatment of infantile paralysis in which some original and heterodox views are expressed. Dr. Mackenzie is of opinion that the muscular factor has been largely overlooked in the pathology of the disease, and he directs his treatment especially to the muscles. He appears not to be convinced that the chief lesions of the disease are in the anterior cornua of the cord, and even suggests that these may be late sequels of the muscular changes. He objects to the treatment by massage and electricity while waiting for the recovery of the anterior cornual cells. He affirms that every affected muscle will work if a commencement be made from what he defines as the "zero" position, and also that an affected limb will retain its heat and show little wasting provided that it be rested and worked within physiological limitations, even without massage and electricity. By the "zero" position is meant one in which the muscle is as nearly as possible at rest, and therefore one in which the origin and insertion of the muscle are practically on a level and in a straight line. This position is the most advantageous one for the muscle to start its movements, and one from which the weak movements of which it is capable may be increased to more effective ones. Dr. Mackenzie therefore constructs splints adapted to various forms of paralysis, with the object of keeping the muscles in the "zero" position at first. He believes that all muscles,

[1] Treatment of Infantile Paralysis. By William Mackenzie. Melbourne; and Australian Medical Journal, June 20th, 1911.

if seen early enough in the course of the disease, are capable of recovery, and that much improvement can be effected even in old-standing cases. In the latter case, however, division of the deep fascia over the muscles may be an advantage, since it may form a firm, more or less unyielding band preventing enlargement of the muscle. Dr. Mackenzie explains that his method consists in getting the affected muscle to resume work gradually, at the same time counteracting any tendency opposing this, such as the overaction of other muscles. He maintains further that work must not be done for the muscle; it must work up to its capacity at the time, and that by massaging a muscle like the paralysed deltoid with the arm hanging down we are asking damaged cells to work at the greatest disadvantage. In his splint for upper arm cases the arm is held up at right angles to the body and the deltoid is gradually made to move from this position. He gives photographs illustrating the results of his methods. While we find it difficult to accept Dr. Mackenzie's criticism of the current views on the pathology of the disease in the light of recent observations upon epidemic poliomyelitis and upon the experimental disease in monkeys, his methods of treatment certainly seem rational and worthy of trial.

THE result of the voting at the recent election of Direct Representatives for England and Wales is as follows :—

Dr. Henry William Langley Browne	7906
Mr. Thomas Jenner Verrall	7502
Dr. Henry Arthur Latimer	7173
Mr. George Brown	3424
Dr. Arthur Hawkyard	2727
Dr. Sidney Cameron Lawrence	2448
Mr. George Jackson	2182
Dr. Arthur George Haydon	909

By the report of Mr. Norman C. King, the Acting Registrar, which by direction of the English Branch Council has been entered on the Minutes of the Council, it appears that only 51 per cent. of the electorate used their suffrage.

A MEETING of the British Hospitals Association will be held at the Westminster Palace Hotel, London, S.W., on Dec. 1st, at 4.30 P.M., to discuss the National Insurance Bill as it affects hospitals and infirmaries. Hospital managers all over the country have expressed a desire that such a meeting should be held, and Members of Parliament and others interested in the question have intimated their intention of being present.

THE annual Richard Middlemore post-graduate lecture will be delivered at the Birmingham and Midland Eye Hospital by Mr. J. Jameson Evans, surgeon to the hospital, on Thursday, Dec. 7th, at 5 P.M. The subject selected is Toxic Diseases of the Eye, and all qualified members of the medical profession are cordially invited to attend. Clinical cases will be present for observation, and there will be a lantern demonstration.

THE autumn dinner of the Irish Medical Schools' and Graduates' Association will be held at the Hotel Cecil, London, on Nov. 30th, at 7.15 P.M. The President, Sir Charles Cameron, C.B., will be in the chair, and Lord Ashbourne and Mr. R. F. McCall, K.C., will be the guests of the association. Tickets may be obtained from Mr. W. J. Corbett, the honorary secretary of the dinner, at 18, Weymouth-street, Portland-place, London, W.

THE next session of the General Medical Council will begin on Tuesday, Nov. 28th, when the President, Sir Donald MacAlister, K.C.B., will take the chair at 2 o'clock P.M.

ANNUAL REPORT OF THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD.

TWO interesting reports with reference to the period 1910–1911 have recently been published by the Local Government Board. The first is the report upon Poor-law administration, the second is the report of the medical officer of the Board; Dr. Arthur Newsholme, to the President relating to the public health of England and Wales. We are at the present confining our attention to Dr. Newsholme's report, which discusses many subjects of vital importance to our profession. Having carefully perused this volume, and the introductory letter in which the medical officer summarises his experience of the progress of public health, we may say at once that it forms a worthy contribution to the series of essays on preventive medicine for which the Medical Department of the Board has achieved a well-deserved celebrity. A special feature in the present report is the frequent use of diagrams in place of, or in addition to, the tabular matter that is ordinarily relied on to enforce the teachings of vital statistics. Many readers there are to whom the scrutiny of columns of figures is tedious, if not misleading, but in whom interest is quickly awakened at the sight of aptly contrived diagrams such as those here provided in abundance. We welcome the introduction of this clear pictorial assistance to our intelligence, for however succinctly prepared and clearly written such a document as that under review may be, it must necessarily bristle with details of the sort which can be carried in the memory far easier if their lessons can be visualised.

Dr. Newsholme refrains from discussing in detail the mortality experience of the year, on the ground that this will be fully dealt with in the forthcoming report of the Registrar-General. An interesting survey is, however, given of the movement of the general death-rate in the course of the last 40 years. Comparing the mortality in the last with that in the first decennium of that period, we learn that a fall of fully 20 per cent. has taken place. Had the death-rate of 1910, in an estimated population of 36,000,000, been equal to the average rate in 1891–1900, not fewer than 171,879 deaths would have been recorded in addition to those which actually occurred. Special attention is invited to the behaviour of certain communicable diseases, both among children and adults, as having intimate relationship to immediate sanitary administration. These diseases are here considered in some detail because of their direct bearing on public health work, although the scope of preventive medicine is by no means limited to the diseases alluded to. As in past years, the subject of infant mortality is referred to, but of purpose, and in view of the circumstance that a special report on this topic is now in course of preparation the remarks thereupon in the present report are only brief. There has been in recent years a substantial fall in the infantile death-rate, and collateral evidence points to improvement at the higher ages likewise. The climatic conditions in recent years have certainly been favourable to infant life, but even allowing for this, there is no doubt that much of the life-saving already accomplished is the result of the increased concentration of public attention upon the health of mother as well as child which has been observable of late. During 1910 897,100 births and 94,828 deaths of infants in their first year were registered in England and Wales. If the experience of 1896–1900 had been repeated in 1910 there would have been 45,120 infant deaths in addition to those that actually occurred. Dr. Newsholme's remarks on the loss of life from the diseases and accidents incidental to childbirth, which deserve the attention of sanitary authorities and their officers, may be here conveniently referred to. Puerperal troubles have but a small effect on the figures of infantile mortality, but by as much as they decrease so much must we look to other causes for the annual toll of infants. That the puerperal state involves appreciable risk to mothers is shown by the fact that in one year alone more than 3300 mothers perished from disease or accident peculiar thereto. During the years 1897–1906 the death of 1 mother in every 228 births was thus caused. In 1909 the proportion was 1 maternal death to 270 births, and the ratio is still

decreasing. The rates from "total puerperal mortality" are shown in a diagram which indicates a fall of more than 30 per cent. as between 1901 and 1909. The fall is more pronounced in the case of "puerperal sepsis" than in that of "accidents of childbirth."

Another diagram shows that the highest puerperal sepsis rates are experienced in North and South Wales, and the highest rates from accidents of childbirth in Westmorland. From both groups of causes the rates are lowest in London and in the adjacent counties. "It is not unlikely," says Dr. Newsholme, "that the lower mortality of London and the Home Counties from accidents of childbirth, in comparison with Wales and the outlying parts of England, is partly due to the fact that the latter comprise districts which are sparsely populated or difficult of access, and where consequently emergency treatment is difficult to obtain, and partly to the greater facilities for obtaining institutional treatment or the assistance of consultants in London and its neighbourhood." Ophthalmia of the new-born, although relatively seldom appearing in the records of mortality, is a disease of most serious character, involving as it frequently does, in the absence of appropriate treatment, the total or partial loss of eyesight. Even when medical attendance is available, it by no means follows that the necessary prompt and active treatment will be carried out. The medical practitioner's instructions are apt to be neglected, and perilous delay in treatment is wont to occur. Hence there is need for immediate official supervision. Concerning the administrative methods adopted in those places where the disease is compulsorily notifiable, evidence is being collected and will shortly be published by one of the Board's medical inspectors. Meanwhile there are indications of gratifying success in some districts of existing measures for the prevention of blindness. It is satisfactory to learn that, judging by army and navy experience, the prevalence of gonorrhœa, which is the main cause of ophthalmia in the new-born, is decreasing, while sanitary authorities are in many instances systematically endeavouring to prevent and to cure this disease, which is responsible for so much of the blindness in this country.

The position of infantile mortality enjoys a proper pre-eminence in all comparisons of vital statistics—we are here beginning at the beginning. But, as a standard of sanitary progress, equal importance attaches to the behaviour of enteric fever and tuberculosis. In order to trace the course of mortality from these and certain other diseases average rates are given for four consecutive ten-year periods. Although these average rates conceal variations of annual prevalence, they are convenient for present purposes as indicating the general course of events. In the decennium 1871–80 England lost by enteric fever 33 in every 100,000 persons living; in the decennium ended 1910 the loss was 9 only in the same number living. By the use of a diagram it is shown that between 1901 and 1910 the mortality from this disease fell by not less than 68 per cent. Enteric fever resembles tuberculosis, and differs from scarlet fever and from diphtheria, in this respect, that it shows no marked tendency to changes either of severity or of cyclic prevalence. Since 1869, in which year it was first officially discriminated from other forms of continued fever, enteric fever has shown uninterrupted decline in mortality, and in Dr. Newsholme's judgment this decline is directly traceable to public health work. Last year enteric fever caused 1848 deaths in England and Wales. Had the death-rate been the same as in the period 1871–80 the deaths would have amounted to about 11,800. The saving of nearly 10,000 lives in a single year implies the occurrence of about 70,000 fewer cases of a disabling illness, and a correspondingly diminished loss of national efficiency. It is further calculated that the total saving in respect of enteric fever alone cannot be less than three millions sterling. Prominent among the causes of this enormous reduction of enteric fever prevalence is undoubtedly the general provision of public water-supplies. But that danger still lurks in certain drinking waters is proved by the experiences of Swanage in the autumn of last year when a sharp epidemic occurred as the result of drinking water contaminated with sewage. Next in importance to the maintenance of a safe water-supply comes the provision of a satisfactory system of main sewerage, which, when accompanied by an ample supply of water, permits of the substitution of water closets for privies and middens. The experience of Grimsby, Portsmouth, and other places on the coast illustrates a somewhat frequent mode of infection by the ingestion of polluted shell-fish. Dr. A. Mearns Fraser, medical officer of health of Portsmouth, is quoted as having reported that he possesses a history of hundreds of cases of enteric fever collected during 14 years, which are proved to have been directly caused by eating polluted shell-fish. "In the light of evidence already available," says Dr. Newsholme, "there is reason for believing that much enteric fever, the source of which is still unrecognised, ... will eventually be traced to the consumption of contaminated shell-fish." Infected ice-cream has often been suspected, but seldom proved, to be the cause of enteric fever prevalence. But in the fall of last year 142 cases of that disease occurred in quick succession at Eccles in Lancashire, the cause of which was traced to the ingestion of ice-cream containing typhoid bacilli. We agree with Dr. Newsholme that in accounting for the decline of enteric fever in this country higher importance should be attached to the considerable amount of hospital accommodation now existing for the isolation of persons suffering from that disease. In the year 1890 only 18 per cent. of the known cases in London were treated in the hospitals of the Metropolitan Asylums Board; in the year 1910 the proportion exceeded 40 per cent. A considerable number of cases of this disease are now treated in the general hospitals of the metropolis; and in the chief provincial towns large numbers are annually admitted to hospital for isolation and treatment. A sufficient and acceptable hospital provision for the treatment of enteric fever is now believed to bear an important rôle in the prevention of its recurrence in populous districts.

To pulmonary tuberculosis and other forms of tuberculous infection considerable space is very naturally devoted in this report. The general course of mortality from tuberculous phthisis during the last 40 years is set forth in a table which shows that the English death-rate therefrom in the ten-year period 1871–80 was equal to 219 per 100,000 of the population, whereas in the ten-year period last ended it did not exceed 117 in the same number living. From a diagram it appears that the decrease since 1901 has been continuous. Comparing 1901 with 1909, we find that the death-rate from pulmonary tuberculosis in England and Wales fell by 14 per cent., whilst in the metropolis in the same interval between 1901 and 1910 it fell by not less than 33 per cent. Had the death-rate from this disease been as high in 1909 as the average in 1871–80 the number of deaths in this country would have been 78,308 instead of 38,639, the number actually recorded. Of these 38,639 deaths at all ages 34,414 occurred at ages 15–65, "the working years of life." If Dr. Farr's estimate of the value of a human life (viz., £150) be adopted, the money loss to the community resulting from these preventable deaths was over 5 millions sterling. On a similar calculation a saving of nearly 6 millions sterling was effected in 1909 as a consequence of the fall in the death-rate since 1871–80. Dr. Newsholme concludes this portion of his subject with the following weighty words: "The continuing national loss of health and wealth still caused by tuberculosis is owing in large measure to the fact that local authorities and others concerned have not yet utilised all available means for its prevention," the reference no doubt being to the regulations for compulsory notification shortly to come into force (see p. 1495). In discussing the relative importance of the factors concerned in the recently diminished loss of life from tuberculosis it appears certain, *in limine*, that the latter depends largely on an improved social and sanitary condition of the people. The close relation between bad housing and excessive prevalence of tuberculosis is well known. Not only are the working classes better housed and better fed at the present time than ever before, but their occupations are pursued under far healthier conditions. Increased resistance to tuberculous infection has been secured by these influences, which have also entailed diminished facilities for infection. The more perfect separation of the sick from the healthy has been one of the prominent features of recent sanitation. At the Census of 1901 one in every thousand of the total English population was an inmate of an institution for the sick. In the year 1910 the proportion of deaths from all causes occurring in such institutions was 21 per cent., and in the metropolis it was 43 per cent. The facts

relating to tuberculosis are even more striking. In the year 1910 more than 56 per cent. of the male deaths, and more than 45 per cent. of the female deaths from phthisis occurred in public institutions; and, what is of first importance from a preventive standpoint, the average stay of each patient in these institutions covered the most dangerous period. Recent statistics prove that the death-rate from phthisis has declined in towns quite as rapidly as in the country, and that the urban and rural death-rates from that disease are approximating closely. The circumstance that the phthisis death-rate in towns has improved in spite of relatively inferior housing conditions may perhaps be accounted for by the consideration that the afflicted town dweller can more readily secure hospital isolation and treatment, and that consequently, as compared with his rural comrade, a smaller portion of his sick life is spent in the crowded tenement or cottage.

In one of the appendices the account is given by Dr. Bruce Low, of the prevalence of plague in foreign countries and of its occasional appearance on board ships in our own ports. But in the present report the medical officer draws attention to a small local outbreak of possible human plague in this country not recognisably associated with previous human cases of plague imported from abroad.[1] In October last year four cases of "pneumonic plague" were notified to the Local Government Board as occurring in a rural district of Suffolk. The bacteriological diagnosis of these cases was not confirmed by inoculation tests, but, having regard to subsequent events, it is a reasonable inference that they may have been plague; and there is the further possibility that two previous limited outbreaks of illness in the same neighbourhood may also have been due to this infection. Rat plague appears to have been present for several years in East Suffolk; nevertheless, only three very limited outbreaks of disease suggestive of human plague have hitherto been discovered. Under the conditions existing in East Suffolk human infection must be regarded as an accidental occurrence. The possibilities of spread of plague from rats to man are much smaller in this country than in India. Pneumonic plague spreads readily from person to person, and in two of the outbreaks of suspected human plague in Suffolk the attacks were chiefly of this type. A diagrammatic map is inserted in the report showing the area affected with rat plague and the position of the parishes from which rats were taken for examination. The whole subject is admirably dealt with in an appendix from the pen of that much regretted sanitarian, Dr. H. T. Bulstrode.

We shall return to a consideration of other portions of this report, which is full of information of general interest to the medical profession.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

ANNUAL MEETING OF FELLOWS AND MEMBERS.

THE 27th annual meeting of the Fellows and Members of the Royal College of Surgeons of England was held at the College in Lincoln's Inn Fields on Nov. 16th. Mr. RICKMAN J. GODLEE, the President, was in the chair, and he commenced the proceedings by expressing his regret that Sir Henry Butlin had been compelled through ill health to resign the presidency of the College, and he said that he felt sure that all present would join with him in regretting Sir Henry Butlin's absence.

Mr. JOSEPH SMITH moved that an expression of the sympathy of the meeting should be sent to Sir Henry Butlin.

The PRESIDENT then laid before the meeting the annual report of the Council, and he proceeded to comment on some of the matters dealt with in the report. He pointed out that the Council, in reply to a letter from the Registrar-General, had expressed the opinion that it was undesirable that an inquest should be held on every death which occurred after an operation, though they thought that it would be well to mention in the death certificate the fact that an operation had been performed shortly before death. He referred to the action which the Council had taken in reference to the Royal Commission on University Education in London, and he expressed the desire of the Council that the present disability of the London medical student in the matter of obtaining degrees should be removed. With regard to the National Insurance Bill, he mentioned the letter which the Council had sent to the Chancellor of the Exchequer, and the very unsatisfactory nature of the reply which they had received. He next referred to the establishment of a Diploma in Tropical Medicine, and stated that the only candidate had been successful. He also mentioned that though the new Examination Hall would cost £1000 more than they had received from the sale of the old hall, yet they would be relieved of the heavy ground rent of £2200, as the new hall was freehold. The great changes and improvements in the Museum were also mentioned. The President then announced that he was ready for any questions arising out of the report, and that he would answer them if possible.

Dr. S. C. LAWRENCE wished to know how many of the 3627 copies of the annual report which had been sent out had been sent to Fellows, but the President was unable to tell him. Dr. Lawrence also wished to know how many ladies had taken the diplomas of the College. He was informed that four had taken the diploma of Member, but that none had as yet become Fellows. In response to a further query as to the order in which the agenda had been put on the paper he was informed that they were placed in the order in which they were received. A few other questions having been asked and answered,

The PRESIDENT called upon Mr. H. Nelson Hardy to move the first resolution, which was as follows:—

That this meeting of Fellows and Members thanks the Council for its letter of June 1st to the Chancellor of the Exchequer, stating definitely the five points on which, in the opinion of the Council, and in that of the great majority of the Fellows and Members of this College, amendments were required in the Bill; regrets the unsatisfactory nature of the official reply, which subsequent events have shown to be entirely misleading; and trusts that until all those five points have been satisfactorily arranged no Fellow or Member of this College will take part in carrying out the scheme of National Insurance proposed in the Bill.

Mr. HARDY expressed the opinion that the five points mentioned in the letter of the Council contained the main objections of the medical profession to the Bill. These points were also put forward by two other important medical bodies in their criticisms of the Bill—namely, the General Medical Council and the British Medical Association. The reply from Mr. Lloyd George was very unsatisfactory and misleading, for Mr. Lloyd George claimed that in the most important respects his own proposals were in accord with those made in the letter of the Council. In every point this was not correct. In the letter of the Council it had been stated that the administration of the medical service must not be placed in the hands of the Friendly Societies, yet the administration had really been put into the hands of the Friendly Societies, for in the Insurance Committees they had the controlling power. Further, in their letter the Council said that persons with incomes over £100 a year should not be permitted to receive medical benefit under the scheme, yet the Bill provided that those with incomes up to £160 must, and that those with incomes over this might, insure for medical benefits. The fifth resolution asked that no attempt should be made to force upon medical men a service which was not sufficiently well paid, and yet Mr. Lloyd George had replied that this was wrangling about fees in a sick-room. These points were enough to show how unsatisfactory was the official reply. The Chancellor of the Exchequer must have thought that he was dealing with children or fools if he believed that such an answer would satisfy them. He often boasted that he was giving 9*d*. for 4*d*., but it was by requiring the medical profession to do ninepennyworth of work for 4*d*. All of them should refuse to assist in this work until the objections put forward by the Council had been removed.

Mr. A. MAUDE seconded the motion, and said that the medical profession had been thrown back into the hands of the Friendly Societies, for these societies were to have 48 per cent. of the seats on the Insurance Committees, while there were to be only two or three medical men in a committee of possibly 80 members.

Mr. F. W. COLLINGWOOD claimed that payment should be made for services rendered.

Mr. ARCHER asked the Council to use its influence to induce other bodies to take action against the Bill. Mr. Lloyd George was not to be trusted.

Mr. MILWARD pointed out that without the assistance of the medical profession the Bill could not be worked. They

[1] THE LANCET, Sept. 2nd, 1911, p. 697.

could decide whether they should perpetuate the slavery of the Friendly Societies.

Several other Members spoke and then the President put the motion to the vote; it was carried by 26 votes to 2.

Mr. H. ELLIOT-BLAKE then moved—

That this meeting of the Fellows and Members desires the Council to obtain an Act of Parliament to authorise the change of the present and obsolete graduate titles of the College to the current and usual ones of M.D. or M.B., B.S.; and of F.S. and F.M. for the respective Fellowships. And for those purposes to seek corresponding power to regulate their university courses within the schools of the University of London or elsewhere.

He believed that the University Commission would come to nothing, and that the only hope for the future was for the Council to apply for an Act of Parliament to remove the present anomaly.

Mr. COLLINGWOOD seconded, and pointed out that if London had as many universities for its population as Scotland, it would have seven or eight.

Dr. LAWRENCE claimed that in this matter at least the Council had been trying to do its best for its Members, but it had failed.

The motion when put to the meeting was lost.

The third motion was moved by Mr. JOSEPH SMITH:—

That this twenty-seventh annual meeting of Fellows and Members again affirms the desirability of admitting Members to direct representation on the Council, which, as now constituted, does not represent the whole corporation; and that it does so in order that the constitution of the Council of the Royal College of Surgeons of England shall be in keeping with modern ideas of true representation.

He claimed that this was the twenty-seventh time that a resolution to the same effect had been moved at these meetings, and that it would not be possible for the Council much longer to ignore the resolutions of the Members. The matter had been so often before them that everyone was well acquainted with it, so that there was no need for him to say much.

Mr. COLLINGWOOD seconded, and several other Members spoke, and when the motion was put to the meeting it was carried without a dissentient vote.

The last motion was proposed by Dr. Lawrence:—

That this meeting of Fellows and Members requests the Council to include in their next annual report a balance-sheet showing fully and without reserve the assets and liabilities of the College on Midsummer Day, 1912.

He said that many Members felt a very natural anxiety to know how the money of the College was spent, and he held that it was very desirable to have a balance-sheet of the year's finances. The present accounts were too indefinite and amounted only to a profit and loss account.

Mr. J. BRINDLEY JAMES seconded.

The PRESIDENT said that of course he could not commit the Council, but the matter would receive consideration.

A vote of thanks to the President closed the proceedings.

MEDICINE IN THE ENCYCLOPÆDIA BRITANNICA.

IX.[1]—VACCINATION.

THE article on vaccination is one of great importance, and, as was to be expected of its author, Dr. S. Monckton Copeman, the subject is well and concisely handled. A brief account is first given of the way in which Jenner established on a scientific basis the fact, hitherto merely a piece of agricultural folk-lore, that cow-pox in a human being actually exercises a protective influence against small-pox. The relationship of cow-pox and small-pox is next reviewed. As evidence of a definite relationship between them it is pointed out that whereas, prior to the introduction of vaccination, epidemics of these disorders frequently arose concurrently, the so-called "natural" cow-pox has now in great measure disappeared. It is further suggested that an outbreak of small-pox may be turned to account for raising, by appropriate experimental methods, a fresh stock of vaccine lymph. It can be definitely stated, the author asserts, that small-pox lymph, especially if obtained from the primary vesicle of a case of the inoculated form of the disease, can be so altered in character by passage through the system of the calf as to become deprived of its power of causing a generalised eruption, while inducing at the site of inoculation a vesicle indistinguishable from a typical vaccine vesicle; and more important still, that when transferred again to man, it has by such treatment completely lost its infectious character. The generally admitted doctrine is therefore stated, "that cow-pox, or rather that artificially inoculated form of the disease which we term *vaccinia*, is nothing more nor less than *variola* modified by transmission through the bovine animal."

A very brief review of the constitution, work, and report, including its findings, of the Royal Commission on Vaccination is next given. In this connexion, we think, a little further account of the essential facts whereby medical science has proved the efficacy of vaccination might with advantage have been included. The public think too often that they can arrive at sound conclusions by the mere method of common sense in matters of which the solution may readily turn upon data with the very existence of which they are wholly unacquainted. It is desirable, therefore, that some idea of the data should be afforded them in such an authoritative publication as the "Encyclopædia Britannica."

The various objections that have been urged against the practice of vaccination fall naturally into two groups: (1) a denial of its efficacy; and (2) an assertion of its dangers. The latter of these, indeed, is given a paragraph to itself, but a categorical summary of the main observations whereby the proof of the protective efficacy of vaccination against small-pox has been established is omitted. Such observations are: (1) Cases of direct inoculation, or the so-called "variolous" test, consisting in the inoculation of efficiently vaccinated persons with variolous matter with negative results; (2) a comparison, embracing sufficiently long periods, of the prevalence and mortality of small-pox, respectively before and after the introduction of vaccination; (3) a comparison of the liability of the general public to small-pox with that of particular groups of efficiently vaccinated persons whose duties necessarily bring them into frequent and intimate exposure to infection—e.g., medical men, nurses, and hospital attendants, more especially those connected with small-pox hospitals; (4) the experience of the modifying effect of vaccination during epidemics, in which the complete stamping out of small-pox in Porto Rico and the Philippines—where it was heretofore endemic—under the enforcement of vaccination, offers perhaps the most striking demonstration yet afforded; and (5) a comparison of the mortality from small-pox in large vaccinated and non-vaccinated communities, of which a conspicuous example is to be found in Prussia since 1874, when vaccination and revaccination became compulsory, and in Austria, which still remains without compulsory vaccination, although since 1891 the Government has done all in its power to encourage the practice. Of the points established by these five observations the first, second, and third are briefly referred to in different parts of the article, but the fourth and fifth are unnoticed.

The necessity of "efficient" vaccination is properly insisted on, and its essentials are well stated as follows: "The clinical and bacteriological purity of the lymph employed for vaccination; the skilful performance of the operation itself; the making an adequate number of insertions of lymph over a sufficient area; the observance of precautions needful for insuring strict asepsis, both at the time of vaccination and subsequently until the vaccination wounds are soundly healed." It is of special importance in the comparatively small number of cases in which small-pox has occurred in vaccinated persons to establish the degree of efficiency of the reputed vaccination in the particular case. Glycerinated lymph, as now almost universally employed in Great Britain, is recommended, but a caution is given to be on the look out for its gradual weakening, such as is likely to occur from at present imperfectly understood conditions. On this point the author says: "Possibly the condition of the calves from which the lymph is obtained, especially as regards their general health and the suppleness or the reverse of their skins, or exposure of the lymph to the action of light or to a high temperature, are of special importance."

As regards the performance of the operation, the standard laid down by the Local Government Board, the production, namely, of a total area of vaccination of not less than half a

[1] Articles I., II., III., IV., V., VI., VII., and VIII. were published in THE LANCET of Feb. 25th (p. 530), March 4th (p. 609), 11th (p. 692), and 25th (p. 823), April 1st (p. 897) and 15th (p. 1028), Oct. 7th (p. 1035), and Nov. 11th (p. 1355), 1911, respectively.

square inch, divided among four separate vesicles or groups of vesicles not less than half an inch from one another, is urged for adoption by the private practitioner. Concerning attempted revaccination, in case of apparent failure it is held to be advisable, as in the case of a primary vaccination, to make further attempts with a lymph of known potency before concluding that the individual is really insusceptible.

In the section on alleged ill-effects it is shown that the danger of transmission of syphilis, which may have occurred with careless vaccinators in the days of arm-to-arm vaccination, may in future be disregarded, for the calf, from which animal all lymph is now obtained, is not capable of contracting syphilis, and therefore cannot contaminate its lymph therewith. Leprosy, like syphilis, is not communicable to the calf. The use of glycerine destroys by long exposure to it any tubercle bacilli, supposing such by any chance to be present in the lymph when collected. Skin eruptions are common in infancy, and they must be expected in about the same proportion of cases as under other conditions; and, finally, the author holds that no causative relation has been proved ever to have existed in the few cases in which eczema and impetigo have followed on vaccination.

The article concludes with an unsigned contribution describing the status of compulsory vaccination in the various countries and the course of legislation thereon in England, special stress being laid on the home vaccination of infants as now practised. This practice was a practical impossibility in the days of arm-to-arm vaccination. The "conscience clause" is discussed, and the conclusion is arrived at that it has not justified the gloomy forebodings expressed at the time of its insertion into the Act. On the contrary, it is stated that "its operation has appeared to tend to the more harmonious working of the Act."

MEDICINE AND THE LAW.

Medical Examinations under the Workmen's Compensation Act.

As medical men are well aware, the Workmen's Compensation Act, 1906, provides that "where a workman has given notice of an accident he shall, if so required by the employer, submit himself for examination by a duly qualified medical practitioner provided and paid for by the employer, and if he refuses to submit to such examination, or in any way obstructs the same, his right to compensation and to take or prosecute any proceeding under this Act in relation to compensation shall be suspended until such examination has taken place." Under this provision for enabling employers to ascertain for themselves the condition at a given time of the workman to whom they are paying, or are likely to have to pay, compensation, disputes have frequently arisen through the contention of workmen that they are not always fairly treated by the medical men representing the employers. The necessity for the detection of malingering requires the exercise of methods on the part of the medical man which the workman whose good faith is absolute may regard with excusable, if unjustifiable, apprehension, and which the malingerer, no doubt, resents as a very undesirable check upon his deceit. The medical man insists that he must make the examination alone; the workman, or his solicitor prompting him, demands the presence of a third party. An important decision of the House of Lords now seems to settle finally the law with regard to this matter upon lines already laid down in previous cases to which reference may first be made.

In THE LANCET of Sept. 17th, 1910, p. 899, comment was made in a leading article upon a case heard in the county court in which a workman was held to have refused to submit himself to examination by Dr. R. J. Collie unless the examination took place at his solicitor's office and in the presence of a member of the firm. His honour Judge Woodfall decided that this constituted a refusal to submit to examination in accordance with the Act. In THE LANCET of March 25th, 1911, p. 830, two similar cases which reached the Court of Appeal were described, in both of which Dr. Collie's name was again mentioned. In the one the workman had been required to submit to examination either at Dr. Collie's house in Porchester-terrace, W., or at his home in Holloway, and he had refused to be examined except at his solicitor's office and in the presence of a member of the firm. His honour Judge Bray, like his colleague Judge Woodfall, decided that this constituted a refusal, and the Court of Appeal confirmed his view, holding that the Workmen's Compensation Act gave no right to impose such conditions as those mentioned. In the second case the Court of Appeal had to decide as to a slightly different condition imposed by or on behalf of a workman—namely, that he should be examined either at the solicitor's office or at the surgery of the medical man who had attended him. In this instance his honour, the late Judge Bacon, was of the opinion upon the facts that there had not been a refusal to submit to examination, and the Court of Appeal upheld his decision, putting the point to be decided thus, "Was the refusal to go to the employers' doctor's surgery so unreasonable as to amount to a refusal to submit to examination or to obstruction?" and replying to this question in the negative. It was pointed out in comment upon this in THE LANCET of March 25th that the question of reasonableness was one of fact for the county court judge, who should take into consideration the material facts of the case before him.

The judgment of the House of Lords mentioned above had reference to yet another condition, and was delivered in a Scottish case upon appeal from a decision of the Court of Session upholding that of the sheriff substitute. The condition sought to be imposed by the working man was that his own medical attendant should be present at the examination made on behalf of the employers—that is to say, the House of Lords was asked to affirm, overruling the Court of Session, that there was "an abstract unconditional right in the workman to have his medical attendant present." This their lordships declined to do. They held that there was no such absolute and unconditional right, but that the question was one of fact, as to whether the condition sought to be imposed was reasonable, the burden of proof of reasonableness lying upon the workman. At the same time, the judgments of the Lord Chancellor and of Lord Atkinson, with whom Lord Gorell concurred, indicated that in their opinion the condition, or request, that the workman's medical attendant should be present might be a reasonable one, and Lord Shaw, who dissented from their judgment, had no doubt that the condition was in all cases reasonable. In his view it was the workman's right to have his medical adviser present, and he went so far as to say, according to the report of the case in the *Times*, that "he was sure that 95 per cent. of the medical practitioners in Scotland would prefer to have the assistance of a doctor on the other side." The word "assistance" needs explanation. As we understand the proposal, it is that the second medical man should be present, but should merely observe the proceedings, taking no part in them—at any rate, not unless invited to do so. To this there might well be no objection in many instances, and so much we have said. But the suggestion has been made that if the right to demand the presence of a second medical man were to be conceded, he should be the medical referee and not the workman's medical attendant. This is not likely to be a usual procedure. However, in conceivable cases the presence of the workman's medical adviser might be extremely objectionable to the employers' medical adviser; it might tend to lessen the efficacy of his examination in ascertaining the truth, and in such circumstances the demand would be "unreasonable." The question of "reasonableness" must govern the situation, and it is now settled law that the workman has no "abstract unconditional right" to demand that his own medical man should be present.

Exhibition Noises and Neighbouring Residents.

Mr. H. O. Becker, an artist living in the immediate neighbourhood of the Exhibition at Earl's Court, claimed an injunction and damages recently against the company carrying on business as Earl's Court Exhibition, Limited, in consequence of the annoyance caused to himself and his household by the noise of certain "side-shows" conducted in the Exhibition grounds. The action was heard by Mr. Justice Eve in the Chancery Division, and a large number of witnesses were called, including the plaintiff and his wife, Mr. Alfred Drury, A.R.A., Mr. Haldane Macfall, Mr. Herman Herkomer, and other artists and friends of the plaintiff, who testified to the impossibility of work or rest in the plaintiff's house while certain amusements were in progress in the Exhibition. Those particularly complained of were a railway of the familiar type actuated

by gravity and known as the Dragon's Gorge, and another amusement, consisting of moving platforms, and apparently much enjoyed by screaming and laughing pleasure-seekers, and a merry-go-round. The plaintiff complained that he was prevented from performing his professional work, and Mrs. Becker, in addition to other evidence, stated that her little daughter was unable to obtain sleep, and, in spite of the hot weather, had to have her bedroom windows closed at night in the attempt to keep out the noise. Mr. Justice Eve held that upon the evidence there had been such a use of the defendant's property as to cause sensible and material detraction from the comfort and enjoyment of the plaintiff's residence. In granting an injunction, he expressed the hope that it would not lessen the enjoyment which every sane and sensible human being ought to be glad to see his fellow-creatures partake of. The effect of it, however, would be to qualify that enjoyment and the mechanism of its production so that they would not inflict undue pain and suffering upon those living near. As no pecuniary loss had been proved by the plaintiff his lordship thought the justice of the case would be met by £25 as damages, the defendants paying the costs. The plaintiff is to be congratulated upon a result which must not only be satisfactory to himself but of which the benefit will presumably be shared by many of his neighbours. The judgment given may also tend to protect dwellers in other parts of London from disturbance in the enjoyment of their homes in peace and health, and may serve as a warning to amusement providers who, however much pleasure they may produce for a section of the public, have as their own motive not philanthropy but the desire to make money.

CENTRAL MIDWIVES BOARD.

A SPECIAL meeting of the Central Midwives Board was held on Nov. 14th at Caxton House, Westminster, with Sir FRANCIS H. CHAMPNEYS in the chair.

The Board considered the following charges amongst others against the midwives whose names are given below, and ordered such names to be struck off the Roll. Jane Blatherwick, that at the assizes held at Liverpool on July 1st, 1911, she was convicted of performing an illegal operation with intent to procure abortion, and was thereupon sentenced to seven years' penal servitude. Priscilla Briscoe, that when attending her patients she did not wear a clean dress of washable material that could be boiled, as required by Rule E, 1; that she did not take with her to a confinement the appliances or antiseptics required by Rule E, 2; and that she did not keep her register of cases as required by Rule E, 23. Mary Ann Cornfield, that being in attendance as a midwife at a confinement she was guilty of negligence in that, the patient's perineum being seriously ruptured, she did not explain that the case was one in which the attendance of a registered medical practitioner was required; nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E, 20 (3). Mary Ann Jackson, that being in attendance as a midwife at a confinement, the child suffering from inflammation of the eyes from birth, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner as required by Rule E, 19 (5) of the rules then in force. Charlotte Plenty, that she was uncleanly in her person and appliances; that she did not possess the appliances and antiseptics required by Rule E, 2; and that she did not take the temperature of her patients, being unable to use a clinical thermometer. Annie Marian Sadler, alias Palmer, that at the Central Criminal Court on July 5th, 1911, she was convicted on her confession of performing an illegal operation with intent to procure abortion, and was thereupon sentenced to five years' penal servitude. Elizabeth Ellen Watkins, that having been suspended from practice by the executive officer of the local supervising authority for a week from Tuesday, July 4th, 1911, on the ground of having attended a case of puerperal fever, she nevertheless attended as a midwife at a confinement and delivered the patient of a child on Friday, July 7th, 1911, without having undergone disinfection as required by Rule E, 5. Elizabeth Webb, that, being in attendance as a midwife at a confinement, the child suffering from inflammation of the eyes on the third day, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E, 20 (5).

The following midwives were censured after charges against them had been considered:—Sarah Coulson and Caroline Fanny Wyatt. Annie Jane Maud Webb was cautioned after charges against her had been considered.

An adjourned special meeting of the Central Midwives Board was held on Nov. 16th at Caxton House, Westminster, with Sir FRANCIS H. CHAMPNEYS in the chair.

The following midwives were struck off the Roll, after the following charges against them had been considered:—Emily Flitton, that being in attendance as a midwife at a confinement, the child suffering from inflammation of the eyes on May 13th, she did not until May 16th explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E, 19 (5) of the rules then in force. Emma Holmes, that being in attendance as a midwife at a confinement, the patient suffering from hæmorrhage after the delivery, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner as required by Rule E, 19 (4) of the rules then in force. Alice Matthews, that she did not take with her to a confinement the appliances and antiseptics required by Rule E, 2; that she did not employ the antiseptic precautions required by Rules E, 3 and 7; and that she did not take the temperature of her patients, being unable to use a clinical thermometer. Rebecca Robinson, that being in attendance as a midwife at a confinement, a registered medical practitioner having been sent for, on her advice, she did not notify the fact to the local supervising authority as required by Rules E, 20 and 21 of the rules then in force; she did not enter the case in her register, as required by Rule E, 22 of the rules then in force. Emily Sturt, that being in attendance as a midwife at a confinement, she did not take with her the appliances and antiseptics required by Rule E, 2; she did not take the patient's temperature at any time. Mary Taylor, that being in attendance as a midwife at a confinement she neglected to attend to the comfort of the patient at the confinement and during the lying-in; the child having died before the attendance of a registered medical practitioner she did not notify the fact to the local supervising authority as required by Rule E, 20 of the rules then in force. Sarah May Walkling, that being in attendance as a midwife at a confinement, the case being one of twins, and the first presentation being abnormal, she did not explain that the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E, 19 (3) of the rules then in force. Ellen Florence Ward, that she was uncleanly in her person and clothing; that her house was uncleanly and insanitary; and that when attending a confinement she did not wear a dress of washable material, as required by Rule E, 1. Emma Willingham, that she was uncleanly and did not wear a dress of washable material; that she did not possess the appliances or adopt the antiseptic precautions required by the rules, and that she did not keep her register of cases as required.

The following midwives were censured after charges against them had been considered:—Harriet Sarah Eckersall and Annie Maud Hodder.

ASYLUM REPORTS.

Mental Hospital of the City of Cardiff (Report for the Year 1910).—The average daily number resident during the year in this hospital was 682. There were admitted 208 patients, of whom 121 were males and 87 females. 197 were direct admissions. Of those admitted, 41 suffered from delusional insanity, 48 from various degrees of melancholia, 54 from dementia, 28 from various degrees of mania, 25 from paralytic dementia, 8 from idiocy and imbecility, and 1 from moral insanity, while 3 persons were not insane. In 81 cases, or 39 per cent. of the admissions, a history of heredity of some kind was elicited. It is to be noted that 67 persons were admitted in a bad state of physical health, 76 in moderate health, and 62 in good health. The recoveries numbered 92. Calculated upon the number admitted, excluding transfers, this gives a recovery-rate of 46·7 per cent. Ten patients left relieved, and these figures taken altogether give a percentage of 51·7 discharged recovered and relieved. Of those who left recovered, nearly 37 per cent. were in residence for not more than four months. The deaths numbered 61, or 11·9 and 5·8 per cent. respectively of the average number of males and females daily resident. Necropsies were held in 56 of the 61 deaths. General paralysis was the cause of death in nearly 30 per cent. Dr. E. Goodall reports that he and Dr. H. A. Schölberg had been engaged upon an investigation into the Wassermann reaction in cases of paralytic dementia and other forms of insanity. The results have since appeared in the *Journal of Mental Science* for April, 1911. Dr. Goodall points out that hitherto the field of morbid histology has been worked in, almost to the exclusion of other fields, but that as the boundaries of research have now been extended far beyond this domain it becomes necessary that specially qualified workers in pathology, chemistry, and physiology should be employed. In recognition of this a research chemist and pathologist have recently been appointed on the staff of the hospital, and it is hoped that ere long an appointment in physiology will also be made.

Asylum for the Counties of Salop and Montgomery and for the Borough of Wenlock (Report for the Year 1910).—At this asylum the average daily number on the registers was 775. The admissions numbered 203, and of these 45 were re-admissions and 25 were transfers. The discharges amounted to 99, and of these 78 were discharged recovered. The proportions per cent. of recoveries to admissions were 44 for males and 36 for females. Of those recovered, 74 per cent. had been in residence for less than 12 months. The deaths numbered 109, being a percentage on the average number resident of 14·53. Of the deaths, 18·2 per cent. were caused by tubercular disease and 4·6 per cent. by general paralysis. Dr. D. F. Rambaut reports that on March 31st of this year the partnership in the asylum between the county of Salop and borough of Wenlock on the one hand, and the county of Montgomery on the other, was dissolved. At the end of March and the beginning of April all the Montgomeryshire patients were transferred to the Cardiff, Cotford, and Powick asylums, except 14 patients whom it was dangerous to move.

Hereford County and City Lunatic Asylum at Burghill, near Hereford (Report for the Year 1910).—The daily average number resident at this asylum was 504. The admissions numbered 82, of whom 45 were males and 37 females. Of these, 21·9 per cent. were cases of mania, 12·2 per cent. cases of melancholia, 10·9 per cent. cases of delusional insanity, 12·2 per cent. cases of dementia, and 25·6 per cent. cases of mental defect (imbeciles and idiots). It is unsatisfactory to notice that the admissions represent a high percentage of dements and mental defectives, a group constituting a class in whom mental recovery is practically hopeless. Mr. C. S. Morrison, the medical superintendent, regards the percentage of mental defectives as foreshadowing in a measure the danger that underlies agricultural depression in the heart of the community. In the direct admissions insane heredity or some degree of congenital mental deficiency was ascertained to be present in 50 per cent. of the total cases. The standard of bodily health in the majority was very poor. The discharges numbered 42, of whom 13 males and 14 females had recovered, giving a percentage of recoveries calculated on the number of admissions of 34·2. The deaths numbered 33, giving a percentage calculated on the daily average number resident of 6·5, being 9·6 for males and 4·2 for females. The average age at death was 57. The number of post-mortem examinations was 23, being 69·7 per cent. of the total number of deaths.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 77 of the largest English towns, having an estimated population of 16,157,797 persons in the middle of this year, 7784 births and 4319 deaths were registered during the week ending Nov. 18th. The annual rate of mortality in these towns, which had been 13·3, 13·5, and 13·1 in the three preceding weeks, rose to 13·9 per 1000 in the week under notice. During the first seven weeks of the current quarter the mean annual rate of mortality in these towns averaged 14·0, or 0·2 per 1000 above the rate recorded in London during the same period. The death-rates in the 77 towns last week ranged from 6·4 in King's Norton, 6·6 in Wallasey, 7·6 in Burton-on-Trent, and 7·7 in Grimsby, to 19·3 in Middlesbrough, 19·6 in Stockport, 20·0 in Stockton-on-Tees, and 21·4 in Sunderland. The 4319 deaths from all causes in the 77 towns were 263 in excess of the number in the previous week, and included 267 which were referred to the principal epidemic diseases, against numbers decreasing from 2900 to 279 in the 12 preceding weeks. Of these 267 deaths, 76 resulted from infantile diarrhœa, 64 from diphtheria, 51 from measles, 31 from whooping-cough, 24 from enteric fever, and 21 from scarlet fever, but not one from small-pox. The mean annual death-rate from these epidemic diseases last week was equal to 0·9 per 1000, against 1·0 and 0·9 in the two preceding weeks. The deaths of infants under two years of age attributed to diarrhœa, which had steadily decreased from 2714 to 113 in the 12 preceding weeks, further declined to 76 last week, and caused the highest death-rates of 1·1 in Oldham and 2·1 in Aston Manor. The deaths referred to diphtheria, which had been 46, 56, and 55 in the three preceding weeks, rose to 64 last week; 21 deaths occurred in London and its suburban districts, 4 in Stoke-on-Trent, and 3 each in Bolton, Bradford, Leeds, and Swansea. The fatal cases of measles, which had been 48, 36, and 37 in the three previous weeks, further rose to 51 last week, and included 13 in London and its suburban districts, 9 in Salford, 6 in Manchester, and 3 in Oldham. The deaths attributed to whooping-cough, which had been 30, 16, and 24 in the three preceding weeks, rose to 31 last week; 7 deaths were registered in London, 3 in St. Helens, and 3 in Sunderland. The deaths referred to enteric fever, which had been 28, 35, and 24 in the three preceding weeks, were again 24 last week, and included 4 in Hull, 3 in Birmingham, and 3 in Sheffield. The fatal cases of scarlet fever numbered 21, against 30 and 26 in the two previous weeks, and included 5 in London and 3 in Stoke-on-Trent. The number of scarlet fever patients under treatment in the Metropolitan Asylums and in the London Fever Hospital, which had steadily increased from 1327 to 2203 in the 11 preceding weeks, had further advanced to 2213 on Saturday last; 291 new cases of this disease were admitted to these hospitals during the week, against 297, 269, and 292 in the three previous weeks. These hospitals also contained on Saturday last 1282 cases of diphtheria, 175 of whooping-cough, 121 of enteric fever, and 84 of measles, but not one of small-pox. The 1128 deaths from all causes in London last week were 20 in excess of the number in the previous week, and included 224 which were referred to diseases of the respiratory system, against 210, 170, and 196 in the three preceding weeks. The deaths attributed to different forms of violence in the 77 towns, which had declined from 158 to 136 in the three preceding weeks, rose to 167 last week, and 371 inquest cases were registered. The causes of 37, or 0·9 per cent., of the deaths registered in the 77 towns last week were not certified either by a registered medical practitioner or by a coroner after inquest. All the causes of death were duly certified last week in London and its 8 suburban districts, in Sheffield, Leeds,

Bristol, West Ham, Bradford, Newcastle-on-Tyne, Nottingham, and in 44 other smaller towns. The 37 uncertified causes of death in the week under notice included 8 in Liverpool, 4 in Gateshead, and 3 each in Birmingham, Preston, and South Shields.

HEALTH OF SCOTCH TOWNS.

In eight of the principal Scotch towns, having an estimated population of 1,710,291 persons in the middle of this year, 770 births and 611 deaths were registered during the week ending Nov. 18th. The annual rate of mortality in these towns, which had declined from 16·7 to 16·3 in the three preceding weeks, rose to 18·6 per 1000 in the week under notice. During the first seven weeks of the current quarter the mean annual death-rate in these Scotch towns averaged 16·4 per 1000, and was 2·4 per 1000 above the mean rate during the same period in the 77 large English towns. The annual death-rates in the several Scotch towns last week ranged from 12·3 in Dundee and 12·9 in Leith to 20·8 in Greenock and 21·7 in Aberdeen. The 611 deaths from all causes were 78 in excess of the number in the previous week, and included 65 which were referred to the principal epidemic diseases, against 47 and 48 in the two preceding weeks; of these 65 deaths, 28 resulted from measles, 19 from diarrhœa, 8 from diphtheria, 4 from scarlet fever, 4 from whooping-cough, and 2 from enteric fever, but not one from small-pox. The mean annual death-rate from these epidemic diseases in the eight towns last week was equal to 2·0 per 1000, and was 1·1 per 1000 above the mean rate from the same diseases in the 77 large English towns. The deaths referred to measles, which had been 12, 15, and 13 in the preceding weeks, rose last week to 28, of which 16 were recorded in Aberdeen and 9 in Glasgow. The deaths attributed to diarrhœal diseases, which had declined from 41 to 9 in the five preceding weeks, rose last week to 19, all of which related to children under two years of age; 11 deaths were registered in Glasgow, 4 in Edinburgh, and 3 in Dundee. The fatal cases of diphtheria, which had increased from 5 to 14 in the four preceding weeks, declined to 8 last week, and included 4 in Glasgow and 2 in Aberdeen. The deaths referred to scarlet fever, which had declined from 8 to 2 in the six preceding weeks, rose to 4 last week, and included 2 in Aberdeen. Of the 4 deaths attributed to whooping-cough, which were slightly above the average in recent weeks, 2 were recorded in Glasgow and 2 in Aberdeen. The 2 fatal cases of enteric fever were registered in Glasgow. The deaths referred to diseases of the respiratory system, which had been 111, 116, and 108 in the three preceding weeks, rose to 144 in the week under notice, and were 23 above the number in the corresponding week of last year. Of the 611 deaths from all causes in the Scotch towns last week, 162, or 27 per cent., were recorded in public institutions, and 44 were attributed to different forms of violence. The causes of 23, or 3·8 per cent., of the deaths in the eight towns last week were not certified or not specified; in the 77 large English towns the proportion of uncertified causes did not exceed 1·0 per cent.

HEALTH OF IRISH TOWNS.

In the 22 town districts of Ireland, having an estimated population of 1,149,495 persons in the middle of this year, 529 births and 419 deaths were registered during the week ending Nov. 18th. The annual rate of mortality in these towns, which had increased from 17·1 to 17·6 in the three preceding weeks, further rose to 19·0 per 1000 in the week under notice. During the first seven weeks of the current quarter the mean annual death-rate in these Irish towns averaged 18·3 per 1000; in the 77 large English towns the mean annual death-rate during the same period did not exceed 14·0 per 1000, while in the eight Scotch towns it was equal to 16·4. The annual death-rate last week was equal to 22·1 in Dublin (against 13·0 in London), 17·7 in Belfast, 25·9 in Cork, 16·6 in Londonderry, 9·5 in Limerick, and 13·3 in Waterford; while in the 16 smallest of these Irish towns the annual death-rate did not exceed 15·4 per 1000. The 419 deaths from all causes were 31 in excess of the number in the previous week, and included 47 which were referred to the principal epidemic diseases, against numbers decreasing from 134 to 33 in the nine preceding weeks; of these 47 deaths, 19 resulted from diarrhœal diseases, 12 from diphtheria, 8 from measles, 5 from whooping-cough, and 3 from scarlet fever, but not one from enteric fever or from small-pox. These 47 deaths from the principal epidemic diseases were equal to an annual death-rate of 2·2 per 1000; in the 77 English towns the mean death-rate from these diseases last week did not exceed 0·9 per 1000, while in the eight Scotch towns it was equal to 2·0. The deaths attributed to diarrhœal diseases, which had steadily declined from 121 to 10 in the nine previous weeks, rose to 19 last week, and included 17 of infants under two years of age; 6 deaths were recorded in Belfast, 5 in Dublin, and 3 in Cork. The deaths referred to measles, which had increased from 1 to 9 in the five preceding weeks, numbered 8 last week, of which 5 occurred in Dublin and 2 in Cork. Of the 5 fatal cases of whooping-cough, which were slightly in excess of the average in recent weeks, 4 occurred in Dublin and 1 in Belfast. The 3 deaths assigned to scarlet fever were equal to the average number in the five preceding weeks, and comprised 2 in Dublin and 1 in Belfast. The deaths referred to diseases of the respiratory system, which had been 77 and 75 in the two preceding weeks, further fell to 73 last week. Of the 419 deaths from all causes in the Irish towns during the week under notice, 153, or 37 per cent., were recorded in public institutions, and 9 were attributed to different forms of violence. The causes of 13, or 3·1 per cent., of the deaths registered in the 22 towns last week were not certified either by a registered medical practitioner or by a coroner after inquest; the proportion of uncertified causes last week did not exceed 0·9 per cent. in the 77 large English towns, but was equal to 3·8 per cent. in the eight Scotch towns.

VITAL STATISTICS OF LONDON DURING OCTOBER, 1911.

IN the accompanying table will be found summarised complete statistics relating to sickness and mortality in the City of London and in each of the metropolitan boroughs. With regard to the notified cases of infectious diseases, it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to an annual rate of 8·5 per 1000 of the population, estimated at 4,522,628 persons in the middle of the year. In the three preceding months the rates were 5·1, 4·4, and 6·9 per 1000 respectively. The lowest rates last month were recorded in Chelsea, the City of Westminster, Hampstead, Holborn, and the City of London; and the highest rates in St. Marylebone, Hackney, Shoreditch, Deptford, Greenwich, and Woolwich. Scarlet fever showed a greatly increased prevalence compared with that recorded in any other recent month; among the several metropolitan boroughs this disease was proportionally most prevalent in St. Marylebone, Hackney, Shoreditch, Lambeth, Deptford, Greenwich, and Woolwich. The Metropolitan Asylums Hospitals contained 2152 scarlet fever patients at the end of last month, against 1400, 1324, and 1656 at the end of the three preceding months; the weekly admissions averaged 317, against 200, 159, and 261 in the three preceding months. Diphtheria also was considerably more prevalent than it had been in several preceding months; the greatest proportional prevalence of this disease was recorded last month in St. Pancras, Stoke Newington, Finsbury, Wandsworth, and Greenwich. There were 1143 diphtheria patients under treatment in the Metropolitan Asylums Hospitals at the end of last month, against 839, 720, and 892 at the end of the three preceding months; the weekly admissions averaged 168 last month, against 120, 85, and 138 in the three preceding months. The cases of enteric fever notified during October showed a marked decrease from the abnormally high number in the previous month; among the several metropolitan boroughs this disease was proportionally most prevalent in Fulham, Hackney, Shoreditch, Stepney, Poplar, and Southwark. The number of enteric fever patients under treatment in the Metropolitan Asylums Hospitals, which had been 47, 56, and 155 at the end of the three preceding months, was 160 at the end of last month; the weekly admissions averaged 23, against 9, 10, and 39 in the three preceding months. The greatest proportional prevalence of erysipelas was recorded in Hackney, Finsbury, Shoreditch, Bethnal Green, Stepney, Bermondsey, Deptford and Greenwich. The 23 cases of puerperal fever notified during the month included 4 in Islington, 4 in Lambeth, 3 in

ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON DURING OCTOBER, 1911.

(Specially compiled for THE LANCET.)

CITIES AND BOROUGHS.	Estimated population in the middle of 1911.	NOTIFIED CASES OF INFECTIOUS DISEASE.											DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.‡									Deaths from all causes.	Death-rate per 1000 living.†
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cerebro-spinal meningitis.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.*	Whooping-cough.	Enteric fever.	Diarrhœa and enteritis (under 2 years).	Total.	Annual rate per 1000 persons living.		
LONDON	4,522,628	—	1400	486	—	150	3	23	594	5	2961	8·5	—	38	13	51	20	25	370	517	1·5	5004	15·1
West Districts.																							
Paddington	142,541	—	27	17	—	3	—	1	10	—	58	5·3	—	—	—	1	1	1	16	19	1·7	139	13·6
Kensington	172,296	—	28	31	—	3	—	—	7	—	69	5·2	—	1	—	1	—	3	12	17	1·3	148	12·1
Hammersmith	121,837	—	24	14	—	4	—	—	8	1	51	5·5	—	—	—	2	—	—	9	11	1·2	128	14·3
Fulham	153,726	—	57	24	—	7	1	1	5	—	95	8·1	—	1	—	1	1	—	14	17	1·4	182	16·1
Chelsea	66,218	—	12	4	—	—	—	2	5	—	23	4·5	—	—	—	—	1	—	3	4	0·8	76	15·5
City of Westminster	159,709	—	23	17	—	3	—	2	13	1	59	4·8	—	—	—	1	—	—	6	7	0·6	147	13·5
North Districts.																							
St. Marylebone	117,844	—	72	10	—	4	—	—	14	—	100	11·1	—	—	1	—	1	—	5	7	0·8	126	14·8
Hampstead	85,599	—	10	10	—	3	—	—	7	—	30	4·6	—	—	—	—	—	1	—	1	0·2	70	12·1
St. Pancras	218,031	—	54	48	—	7	—	—	27	—	136	8·1	—	1	4	2	2	1	10	20	1·2	250	15·6
Islington	327,234	—	105	71	—	11	—	4	39	1	231	9·2	—	2	2	7	—	3	24	38	1·5	372	15·4
Stoke Newington	50,669	—	14	14	—	—	—	—	4	—	32	8·2	—	—	1	1	—	—	2	4	1·0	52	14·0
Hackney	222,674	—	97	47	—	12	—	1	43	—	200	11·7	—	—	1	2	2	3	15	23	1·3	232	14·2
Central Districts.																							
Holborn	49,084	—	7	6	—	1	—	—	4	—	18	4·8	—	—	—	—	—	—	—	—	—	46	12·8
Finsbury	87,639	—	16	20	—	3	—	—	30	—	69	10·3	—	—	—	—	2	2	5	9	1·3	134	20·6
City of London	19,475	—	1	1	—	1	—	—	2	—	5	3·3	—	—	—	—	1	—	—	1	0·7	18	13·2
East Districts.																							
Shoreditch	111,284	—	52	18	—	7	—	—	27	—	104	12·2	—	—	—	4	1	—	20	25	2·9	189	23·2
Bethnal Green	128,247	—	39	15	—	4	1	3	33	—	95	9·7	—	—	1	2	—	—	11	14	1·4	162	16·7
Stepney	279,560	—	62	33	—	22	—	—	55	—	172	8·0	—	—	—	4	—	—	30	34	1·6	322	15·7
Poplar	162,290	—	37	27	—	13	—	1	23	1	102	8·2	—	—	1	4	3	4	17	29	2·3	208	17·2
South Districts.																							
Southwark	191,595	—	44	25	—	12	—	—	37	1	119	8·1	—	7	—	1	1	1	17	27	1·8	271	19·2
Bermondsey	125,840	—	28	27	—	3	—	—	30	—	88	9·1	—	3	—	—	1	1	21	26	2·7	183	19·5
Lambeth	298,032	—	144	46	—	5	—	4	31	—	230	10·1	—	2	1	4	3	1	23	34	1·5	343	15·5
Battersea	167,765	—	34	19	—	4	—	—	18	—	75	5·8	—	—	—	—	—	2	16	18	1·4	177	14·8
Wandsworth	313,389	—	102	71	—	4	—	1	20	—	198	8·2	—	—	—	—	—	—	24	24	1·0	250	11·0
Camberwell	261,407	—	83	35	—	4	1	—	35	—	158	7·9	—	9	—	2	—	—	19	30	1·5	285	14·7
Deptford	109,475	—	65	12	—	1	—	—	20	—	98	11·7	—	12	1	2	—	—	16	31	3·7	131	16·4
Greenwich	95,982	—	43	64	—	—	—	—	19	—	126	17·1	—	—	—	2	—	—	20	22	3·0	103	14·3
Lewisham	161,677	—	52	35	—	6	—	3	13	—	109	8·8	—	—	—	4	—	2	7	13	1·0	136	11·5
Woolwich	121,609	—	68	25	—	2	—	—	15	—	110	11·8	—	—	—	4	—	—	8	12	1·3	125	14·3
Port of London	—	—	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—

* Including membranous croup. † The death-rates are corrected for variations in sex- and age-constitution of the populations of the several boroughs, the population of England and Wales being taken as the standard. ‡ Deaths from "typhus fever" and "other continued fevers" are not now distinguished in the Registrar-General's weekly returns; these two columns are therefore omitted from the Table.

Bethnal Green, 3 in Lewisham, 2 in Chelsea, and 2 in the City of Westminster. The 5 cases of cerebro-spinal meningitis belonged respectively to Hammersmith, the City of Westminster, Islington, Poplar, and Southwark.

The mortality statistics in the table relate to the deaths of persons actually belonging to the several boroughs, the deaths occurring in institutions having been distributed among the boroughs in which the deceased persons had previously resided; the death-rates from all causes are further corrected for variations in the sex- and age-constitution of the population of the several boroughs. During the four weeks ending Oct. 28th the deaths of 5004 London residents were registered, equal to an annual rate of 15·1 per 1000, against 12·4, 18·9, and 16·8 per 1000 in the three preceding months. The death-rates last month ranged from 11·0 in Wandsworth, 11·5 in Lewisham, 12·1 in Kensington and in Hampstead, and 12·8 in Holborn, to 17·2 in Poplar, 19·2 in Southwark, 19·5 in Bermondsey, 20·6 in Finsbury, and 23·2 in Shoreditch. The 5004 deaths from all causes included 38 from measles, 13 from scarlet fever, 51 from diphtheria, 20 from whooping-cough, 25 from enteric fever, and 370 among children under two years of age from diarrhœa and enteritis. No death from any of these diseases was recorded last month in Holborn; among the other boroughs they caused the lowest death-rates in Chelsea, the City of Westminster, St. Marylebone, Hampstead, and the City of London, and the highest rates in Shoreditch, Poplar, Southwark, Bermondsey, Deptford, and Greenwich. The 38 deaths from measles were 13 fewer than the corrected average number in the corresponding period of the five preceding years; of these 38 deaths, 12 belonged to Deptford, 9 to Camberwell, 7 to Southwark, 3 to Bermondsey, and 2 each to Lambeth and Islington. The 13 fatal cases of scarlet fever were 31 below the corrected average number, and included 4 in St. Pancras and 2 in Islington. The 51 deaths from diphtheria were 6 in excess of the corrected average number; of these 51 deaths, 7 belonged to Islington and 4 each to Shoreditch, Stepney, Poplar, Lambeth, Lewisham, and Woolwich. The 20 fatal cases of whooping-cough were less than one-half the corrected average number in the corresponding period of the five preceding years; 3 of these deaths belonged to Poplar, 3 to Lambeth, 2 to St. Pancras, 2 to Hackney, and 2 to Finsbury. The 25 deaths referred to enteric fever were 6 below the corrected average, and included 4 in Poplar, 3 in Kensington, 3 in Islington, 3 in Hackney, 2 in Finsbury, 2 in Battersea, and 2 in Lewisham. The 370 deaths from diarrhœa and enteritis among children under two years of age showed a decline of 999 from the number recorded in the previous four weeks; the greatest proportional mortality from this cause last month occurred in Paddington, Shoreditch, Bermondsey, Deptford, and Greenwich. In conclusion, it may be stated that the aggregate mortality in London last month from the principal infectious diseases (excluding diarrhœa) was 69 per cent. below the average.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE undermentioned Staff-Surgeons have been promoted to the rank of Fleet-Surgeon in His Majesty's Fleet: Charles Henry James Robinson, Harold Huskinson, Ernest Sydney Tuck, Murray Parry Jones, Arthur William Bligh Livesay, Herbert Hope Gill, William Reynolds Trythall, John Charles Rowan, Richard Adolphus Ross, and Michael Joseph Smith (dated Nov. 12th, 1911).

The following appointments have been notified:—Fleet-Surgeons: R. A. Fitch to the *Neptune*, for service on staff of Commander-in-Chief, Home Fleet; E. Hodnet de Courtmacsherry to the *Hercules*, for service on staff of Vice-Admiral Commanding 2nd Division, Home Fleet; J. H. Stenhouse to the *King Edward VII.*, for service on staff of Vice-Admiral Commanding 3rd and 4th Divisions, Home Fleet; J. Andrews to the *Exmouth*, for service on staff of Commander-in-Chief, Mediterranean; P. B. Handyside to the *Minotaur*, for service on staff of Commander-in-Chief, China; V. G. Thorpe to the *Powerful*, for service on staff of Commander-in-Chief, Australia; G. A. Dreaper to the *Hermes*, for service on staff of Commander-in-Chief, Cape; E. Sutton to the *Highflyer*, for service on staff of Commander-in-Chief, East Indies; E. B. Pickthorn to the *Prince of Wales*, for service on staff of Vice-Admiral Commanding Atlantic Fleet; C. S. Woodwright to the *Leviathan*, for service on staff of Rear-Admiral Commanding Fourth Cruiser Squadron; R. Hill, M.V.O., to the *Medina*, for service on staff of Rear-Admiral Commanding Detached Squadron; W. R. Trythall to the *Roxburgh*; P. W. Bassett-Smith, C.B., to the *President*, additional, for duty as Professor of Clinical Pathology in the Naval Medical School, Greenwich; A. Gaskell to the *President*, additional, for three months' course of special study in metropolitan hospitals and for duty as Professor of Hygiene and in charge of studies at Naval Medical School, Greenwich; F. H. A. Clayton to the *President*, additional, for three months' course of special study in metropolitan hospitals, to the *Victory*, additional, for Haslar Hospital, and to Haslar Hospital as Instructor of Acting Surgeons and in charge of Junior Medical Section. Staff-Surgeons: W. L. Martin to the Medical Department and R. W. Stanistreet to the *Empress of India*. Surgeon: A. Fairley to the *Roxburgh*.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel John C. Haslett, Half-pay List, is placed on retired pay (dated Nov. 16th, 1911).

The undermentioned Majors to be Lieutenant-Colonels (dated Nov. 2nd, 1911):—John W. Bullen, vice C. A. Young, supernumerary; and Benjamin J. Inniss, vice J. Will, supernumerary.

Major Gerald B. Carter retires receiving a gratuity (dated Nov. 8th, 1911).

The undermentioned Captains to be Majors (dated Nov. 17th, 1911):—Edward W. Siberry and Basil F. Wingate.

Colonel Sir David Bruce, F.R.S., expert on tropical diseases to the Army Medical Advisory Board, has left the London District for duty in Nyassaland under the Colonial Office. Colonel L. E. Anderson has taken up duty as Principal Medical Officer of the Bareilly, Garhwal, and Dehra Dun Brigades with headquarters at Bareilly. Lieutenant-Colonel W. H. Starr, on transfer from India, has been posted to the Eastern Command. Lieutenant-Colonel W. C. Beevor, C.M.G., lately commanding the station hospital at Bangalore, has on arrival home been ordered to join the Irish Command for appointment to medical charge of the Military Hospital at Fermoy, vice Major C. J. Healy. Lieutenant-Colonel J. M. F. Shine, from Fyzabad, has been placed in medical charge of the troopship *Plassy*, which left Bombay for Southampton on Nov. 9th. Lieutenant-Colonel H. W. Austin has been placed in medical charge at Fort Stamford. Lieutenant-Colonel W. W. Pike, D.S.O., has arrived home on leave of absence from Egypt. Lieutenant-Colonel W. Turner, in charge of the Military Hospital at York and commanding No. 8 Company, R.A.M.C., has been transferred to Aldershot, to take charge of the Connaught Hospital. Lieutenant-Colonel J. Fallon, lately in medical charge at Preston, has embarked for a tour of foreign service with the Northern Army in India. Lieutenant-Colonel N. C. Ferguson, C.M.G., has been transferred from Queen Alexandra's Military Hospital, Grosvenor-road, to the Northern Command to take over charge of the Military Hospital at York. Major B. J. Inniss, in charge of the Military Hospital at Gravesend, has, on promotion, been transferred to Ireland to take charge of the Military Hospital at Belfast. Major L. P. More has taken up duty at Portsmouth in charge of the reception hospital. Major T. H. J. C. Goodwin, D.S.O., from Aden, has been transferred to the home establishment. Major F. J. C. Heffernan has embarked for India for a tour of foreign service. Major J. P. Silver, company officer at Edinburgh, has been granted leave of absence to Dec. 16th. Major W. Hallaran has been appointed to command at the station hospital at Chakrata, in succession to Lieutenant-Colonel S. Westcott, C.M.G., tour-expired. Major G. M. Goldsmith has been transferred from Maymyo to the Eighth (Lucknow) Division. Major W. T. Mould, company officer at Dover, has been detailed by the War Office for a tour of service in India, embarking at an early date. Major A. M. MacLaughlin, specialist sanitary officer in the Scottish Command, has been granted leave of absence until Dec. 4th. Major L. Wood, adjutant of the Royal Army Medical Corps School of Instruction at Manchester, has been detailed for transfer to Burma. Major C. E. P. Fowler, specialist sanitary officer at Gibraltar, has arrived home on leave of absence. Major S. H. Withers, commanding the station

hospital at Gharial, has been selected for appointment to command the Station Hospital at Dagshai for a period of two years with effect from March next. Major D. Harvey has left the London District for duty in Nyassaland under the Colonial Office. Captain P. J. Hanafin has taken up duty as Specialist in Ophthalmology in the Dublin District. Captain C. W. Holden has been transferred from Tientsin to Shan-Hai-Kuan. Captain A. C H. Gray has taken up duty as Clinical Pathologist at the Royal Infirmary, Dublin. Captain H. W. Farebrother has received one month's extension of his leave of absence on the recommendation of a medical board. Captain A. Dawson has been transferred from the Ninth (Secunderabad) Division to the Aden Brigade and placed in charge of the Brigade Bacteriological Laboratory in succession to Captain E. W. Powell, returning home tour-expired. Captain J. S. Bostock has embarked for a tour of service in India for duty with the Northern Army. Captain P. G. Patch has taken up duty in the northern command as Specialist in Otology, Rhinology, and Laryngology. Captain A. McMunn, from Portobello Military Hospital, Dublin, has joined at Hong-Kong for a tour of service. Captain G. E Ferguson, on return home from Cyprus, has been appointed to the Southern Command. Captain A. R. C. Parsons, specialist in advanced operative surgery at Edinburgh, has been granted leave of absence from Dec. 18th to Jan. 17th. Captain C. A. Morris, C.V.O., attached to the 16th Battalion London Regiment (Queen's Westminster Rifles), has been selected for a course of instruction at the Queen Alexandra Military Hospital, Millbank, from the 6th inst. Captain H. H. A. Emerson has taken up duty at Clonmel. Captain W. MacD. MacDowall has been transferred from Aldershot to Ewshott. Lieutenant F. W. M. Cunningham, on the closing of Donard Camp, has been appointed for duty to the Curragh. Lieutenant R. M. Davies, from Landguard Fort, has taken up duty at Chatham. Lieutenant C. Robb, from the Curragh, has been selected for employment with the Public Health Department of the Government of Egypt. Lieutenant E. C. Stoney has been placed in charge of staff and families at Colchester, in succession to Lieutenant R. C. Priest.

INDIAN MEDICAL SERVICE.

Surgeon-General A. M. Crofts, C.I.E., has taken up duty as Principal Medical Officer of the Second (Rawalpindi) Division of the Northern Army. Lieutenant-Colonel W. R. Edwards, C.M.G., administrative medical officer of the North-West Frontier Province, has been granted one year's leave of absence home from India. Lieutenant-Colonel M. A. Ker has been appointed to the Medical Charge of the 2nd Battalion 5th Gurkha Rifles, in succession to Lieutenant-Colonel C. E. L. Gilbert, transferred to the Medical Charge of the 26th Punjabis at Samana. Lieutenant-Colonel W. B. Lane, Inspector-General of Prisons in the Central Provinces, has been granted 18 months' leave of absence home from India. Lieutenant-Colonel L. F. Childe has been appointed Senior Medical Officer at the Parsi Hospital, Bombay, and will act as Principal of the Grant Medical College during the absence of Lieutenant-Colonel C. H. L. Meyer. Lieutenant-Colonel L. G. Fischer has been selected for appointment as a Civil Surgeon of the First Class in succession to Lieutenant-Colonel L. J. Pisani, retired. Major S. P. James, statistical officer with the Government of India, has been selected to proceed to the Panama Canal to report on investigations in connexion with yellow fever being carried out in that locality. Major E. C. Peck has relinquished charge of the duties of Superintendent of the Jullundur Jail. Major W. H. Kenrick, on special duty in the office of the Sanitary Commissioner of the Central Provinces, has been appointed to officiate as Sanitary Commissioner of the Central Provinces during the absence home on leave of Major T. G. M. Stokes, the permanent incumbent. On return from leave Major T. Stoddart has taken up duty as Civil Surgeon of the Ruby Mines District, relieving Captain H. S. Matson. Captain E. H. B. Stanley has been granted one year's leave of absence home from India. Captain N. S. Wells, Civil Surgeon in the United Provinces, has been granted one month's leave on Medical Certificate. Captain W. S. McGillivray has been selected for appointment to the Substantive Medical Charge of the 41st Dogras.

SPECIAL RESERVE OF OFFICERS.

Royal Army Medical Corps.

Lieutenant Hubert Cox is confirmed in his rank.

TERRITORIAL FORCE.

Royal Army Medical Corps.

Captain John Marcus Hobson Conway, R.A.M.C., to be Adjutant of a School of Instruction (dated Nov. 1st, 1911).

1st Highland Field Ambulance, Royal Army Medical Corps: Lieutenant James Robertson to be Captain (dated Oct. 14th, 1911).

2nd Highland Field Ambulance, Royal Army Medical Corps: Lieutenant James F. Mackintosh to be Captain (dated Oct. 14th, 1911).

3rd Highland Field Ambulance, Royal Army Medical Corps: The undermentioned officers to be Captains (dated Oct. 1st, 1911): Lieutenant James M. Smith and Lieutenant John H. Hunter.

3rd Home Counties Field Ambulance, Royal Army Medical Corps: Lieutenant Thomas Francis Roche, from the List of Officers of the Royal Army Medical Corps attached to Units other than Medical Units, to be Lieutenant (dated Nov. 15th, 1911). Lieutenant Edwin Augustus Houchin, from the 2nd Home Counties Field Ambulance, Royal Army Medical Corps, to be Lieutenant (dated Nov. 15th, 1911).

2nd London (City of London) Field Ambulance, Royal Army Medical Corps: Lieutenant Francis R. Humphreys to be Captain (dated Oct. 1st, 1911).

2nd North Midland Field Ambulance, Royal Army Medical Corps: Lieutenant James R. Plant resigns his commission (dated Nov. 15th, 1911).

3rd North Midland Field Ambulance, Royal Army Medical Corps: Lieutenant Andrew E. Hodder to be Captain (dated March 24th, 1911).

1st West Riding Field Ambulance, Royal Army Medical Corps: Lieutenant James Ewing to be Captain (dated Oct. 1st, 1911).

1st Welsh Field Ambulance, Royal Army Medical Corps: Lieutenant John Buckner to be Captain (dated Oct. 1st, 1911).

1st Scottish General Hospital, Royal Army Medical Corps: Lieutenant-Colonel James M. Booth resigns his commission and is granted permission to retain his rank and to wear the prescribed uniform (dated Nov. 15th, 1911).

Attached to Units other than Medical Units.—Captain David J. Penney to be Major (dated Sept. 20th, 1911). Lieutenant Winstan St. A. St. John to be Captain (dated Oct. 1st, 1911). Captain John B. Stevens to be Major (dated Oct. 4th, 1911). Lieutenant-Colonel William R. Sewell resigns his commission and is granted permission to retain his rank and to wear the prescribed uniform (dated Nov. 15th, 1911). Captain John S. Mackay resigns his commission, and is granted permission to retain his rank and to wear the prescribed uniform (dated Nov. 15th, 1911).

For Attachment to Units other than Medical Units.—James Hogg Martin to be Lieutenant (dated Oct. 17th, 1911).

HEALTH OF THE ARMY IN 1910.

The Director-General's Annual Report on the Health of the Army for the Year 1910 (Vol. LII.) has just been published by His Majesty's Stationery Office, and is now on sale at the price of 1*s.* 9*d.* each copy. In his introductory letter to the Secretary of the War Office, Sir William Gubbins draws attention to the steady improvement in the health of the troops which has been in progress for the past 12 years or so, and which was well maintained during 1910. The ratios per 1000 of strength, for troops at home and abroad, of admissions, of deaths, of invalids sent home, and of soldiers constantly sick were in 1910 the lowest on record and showed a considerable decrease on the previous year. The ratio of invalids finally discharged was a trifle higher than in 1909, but was lower than any other previous ratio, while the average sick time (9·15 days) per man was 1·24 days less than in 1909. These figures are most satisfactory, and are naturally attributed by the Director-General to the increased attention which of late years has been paid to personal hygiene and general sanitation among our troops by those responsible for their health.

THE CORONATION DURBAR AT DELHI.

Colonel S. J. Rennie, commanding the Northern Regiment, United Provinces Horse, has been selected to command the Volunteer Cavalry at the Coronation Durbar to be held at Delhi. Colonel Rennie retired from the Royal Army Medical Corps and settled in practice at Mussooree some few years ago. He was shortly afterwards appointed to command the Dehra Dun Volunteer Cavalry.

Correspondence.

"Audi alteram partem."

THE NATIONAL INSURANCE BILL.

To the Editor of THE LANCET.

SIR,—I am one of those who believe that in principle contract payment is the best. All members of the profession engage in contract practice, more or less. The general practitioner engages to attend a confinement at a fixed sum to include after visits; the operating surgeon does the same for his work. All paid appointments are on the same basis. "Payment for work done," as the phrase goes, would not be secured by a fixed sum per visit (also a contract by the way). There is considerable difference in value between a first visit, when 30 or 40 minutes may be spent in examination, &c., and subsequent ones, when five minutes are often sufficient, and also between night and day, special and routine visits. If all these and other conditions are to be separately rated, half one's time will be spent in working out what is due. Adequate payment for a variety of services can only be arrived at by lumping them all together.

Sir Alfred Pearce Gould says: "The doctors would have to accept small cash fees, and to *insist on their payment at the time*." This to my mind is a fatal objection to the scheme. Consultants, perhaps, are not practically familiar with general practice amongst the poor. Imagine a man in a crowded cottage just having ordered certain things which the mother of the sick child says she cannot possibly afford; the doctor is to reply, "I am sorry for that; my fee, please," and take it, in sixpenny bits and coppers, with one eye on the child for whom some necessary cannot be bought. The fee would not always be paid, consequently bad debts and cash-books would continue as now.

Many writers offer as a test of contract practice its application to all classes, and mention as against it that the system was founded on charity. Surely the fact that any scheme is originally founded on one idea is not to bar its application for ever to any other if otherwise suitable? The only charitable element in club practice is the *amount* of the capital fee, and as to the universal application I personally think that it would be quite suitable for general practice. Again, the close association of work and payment is mentioned as sweetening both; on the contrary, I think the one objection to the practice of medicine is the daily valuation of one's services. It would be an ideal life with an assured sufficient income—no accounts to keep, no bills to send out, no bad debts, and no hints and suspicions of unnecessary zeal. The one valid objection is "unreasonable demands on the doctor and malingering." The suggested remedy for this is that the poor man shall pay for each visit, receiving an extra grant for the purpose; either this extra grant would exactly equal the doctor's bill or it would not; in the former case there is no stimulus; in the latter, if it is more, the patient retains money that ought to go to the profession, and if it is less the doctor won't get paid!

No scheme which provides that the patient pays the doctor's bill will meet the primary object of the Bill, which is to make certain provision for medical attendance on the poor at all times, for the simple reason that any doctor, and therefore all doctors, could refuse to attend any given individual who had a bad reputation with regard to paying. Some months ago, in a letter to the *Times*, I suggested that unreasonable demands could easily be got over by debiting the patient with a small charge for each visit. The doctor would merely have to initial a card at each visit and the necessary total would be deducted from the payments made to the patient. This would check unnecessary calls and secure that the patient pays somewhat according to the attention he requires.

It is said that if the sum paid to the profession under the scheme of "contract" is "adequate," it must equal the total sum that should be paid by the sick members of the insured community under the ordinary method of payment for work done. Quite so. Let that sum be properly ascertained, as it can be actuarially. Insurance companies do not fix their premium rates at the dictation of a Chancellor, neither should we. Mr. Lloyd George has consulted professional men to work out other money items, and he should be asked to utilise their services to work out this question also. The sum of money, therefore, required to remunerate the profession would be the same in either case, with *this* difference: "For work done" the practitioner would have to collect it himself, and would then probably always receive something less than 100 per cent. *Per capita* he would get 100 per cent. paid quarterly, and no unpleasantness about it.

A simple and satisfactory scheme would be: 1. A sum of 10*s.* (or other amount properly ascertained) for every individual who did not pay income tax. 2. A fine of 1*d.* per £1 of weekly income for each visit. 3. Free choice of doctor, half-yearly. 4. Consultations, midwifery, surgery, anæsthetics to be paid either extra or dealt with at an institution.

The income-tax limit is far simpler than one based on fluctuating earnings and, the *pay being adequate*, the exact line of admission is immaterial. Such a system would practically wipe out all bad debts and gratuitous work, and the profession would be able to accept everybody within the income limit, without further haggling over this and that, merely arranging amongst themselves for a fair distribution of "chronics" and other undesirables whom nobody wants but somebody must attend. I cannot understand how anyone can think it more dignified and honourable to accept small cash fees from labourers and domestics than to receive quarterly a cheque from the State. There is nothing undignified in receiving a cheque of 100 guineas from the donor's hand, but when it comes to accepting a silver coin from a domestic, who later in the day may receive it back again for helping on one's coat after dining out, the word dignity is out of place. I hope the profession will not be led away by such phrases as "the thraldom of contract practice" to reject a certain and easy method of payment for a vexatious and uncertain one, under a system which is every bit as much a contract as the other. The only thraldom I know of is to be overworked and underpaid.

The whole thing for us turns on one point only—£ *s. d.* The one and immediate thing the profession has to do is to insist that the *per capita* sum shall be ascertained by professional experts and not guessed at or based on charitable schemes of the past, and have the sum fixed for the whole country and named in the Bill. The constitution of the Health Committees will then be of no moment, and there will be no local disputes between those committees and the profession—a great danger as matters stand at present.

I am, Sir, yours faithfully,

PENROSE WILLIAMS, F.R.C.S. Edin.

Bridgwater, Nov. 19th, 1911.

To the Editor of THE LANCET.

SIR,—I hope you will find me space to reply to Dr. B. Hall's letter, which appeared in your last issue. Allow me to say, at the outset, that I am not endeavouring to prove that contract practice is necessarily more immoral and dishonest than private practice, but I do undertake to demonstrate the greater disadvantages of contract practice, both to patients and physicians, when compared with private practice. Further, I undertake to show the disadvantages of contract practice, not only where the premium is adequate, but where it is much more than the most miserly member of the profession could desire. This point is of extreme importance, for I am sorry to say I meet not a few medical men who hurl all kinds of epithets at the Chancellor of the Exchequer because he threatens to introduce the contract system, who, when one asks them if a 12*s.* or 15*s.* capitation fee would make the scheme reasonable, immediately reply, "Yes, yes." These people seem willing to sell themselves.

Dr. Hall maintains that contract practice is more lucrative than private practice. I am doubtful about this, but I will say here that I feel inclined to agree with him. I most decidedly disagree with him, however, when he suggests that contract practice is as satisfactory to patient and physician as private practice. I take up his points in detail. Dr. Hall says, "Those who contend for payment for work done under the Act intend, I presume, that there should be paid us a fixed fee for every visit." As far as I am concerned, Dr. Hall is wrong in his presumption. The fee does not require to be fixed, but will depend on the time and place of the visit, the quantity and the quality of the work done, the ability or inability of the patient to pay, just as it depends on such circumstances in any private practice to-day. Dr Hall is not to understand, however, that medical men

would necessarily subscribe to the scheme even when the fees are placed on this footing. The system of payment is not the worst feature of the scheme. A worse, perhaps the worst, feature is this, that a patient as soon as he has chosen his medical adviser, and a doctor as soon as he has chosen his patient, are to be bound to one another for *a definite* period of time, no matter what discord may arise between the two parties. No doubt an aggrieved person will have the right of appeal to the Local Insurance Committee, but very awkward situations may arise while an appeal is in progress; whereas in private practice a patient is free to throw up his physician at any time, and a like liberty belongs to the physician.

Let me quote fully the next important point in his letter. Speaking of payment for work done, he considers the payment as so much per visit, always so much, never more and never less. He says: "Thus the value of the service rendered has no limit in its variation to the fixed fee. In the same way one can see that though the fee is in some occult way supposed to bear relation to the income, or rather rent of the patient, the relation is anything but regular—so irregular, in fact, that it is foolish to call it 'relation' at all." If these words were applied by anyone to that clause of the national insurance scheme which deals (or will deal) with medical fees, they could hardly be more apt.

Dr. Hall next states that "under the *per capita* system the relation—of visit to fee—is absolutely scientific." Surely if work can be scamped in private practice it may also be scamped in contract practice. Nay, it will be scamped more easily, for the physician's fee is secure, at least for a time. I am sure physicians who have had experience of contract practice will agree with me when I say that the temptation to cut work is stronger in a contract than in a private practice.

Dr. Hall then proceeds to show that in the contract system one may foretell more accurately the number of births, deaths, or visits to be made than in the private system. I have found it as difficult to prophesy in the one case as in the other. The economical aspect of the contract system I purposely pass over, for I hold most strongly that it is not the economical but the ethical aspect of the insurance scheme which should now occupy our attention. I have not much doubt but that Mr. Lloyd George is prepared to yield on the six cardinal points of the British Medical Association, but he is keeping the concession up his sleeve till the right time comes, when they will act as a sop to the profession. Suppose he does yield, will the laugh be on our side? Not at all; the Chancellor will have wedded the medical profession to contract practice.

In the last paragraph of his letter Dr. Hall states that he prefers contract to private work. Be it so. I would like, however, to point out to Dr. Hall two very important reasons for the abolition of contract practice. Firstly, the very fact that in the private system there is no legal contract between a patient and a physician makes the bond between these two parties all the more beneficial and desirable to both. Secondly, the mental influence which a physician exercises over his patient—a very important part of treatment—is apt to become a vanishing quantity whenever the parties are bound together by rules and regulations.

I am, Sir, yours faithfully,

Harringay, N., Nov. 20th, 1911. R. S. MILLER, M.B., Ch.B.

To the Editor of THE LANCET.

SIR,—I have followed with interest the letters and articles which have appeared in the medical journals on the Insurance Bill. As an insurance medical man in the City, having no active interests in general practice, "contract" or otherwise, I can only hope if the Bill passes that the best interests of the profession will have been safeguarded by those in authority. The ordinary insurance man is credited usually as being a very keen individual, he sees business in everything. As soon as the Bill passes the country will be probably flooded with schemes and proposals of all kinds, especially from companies doing an industrial class of work. New small companies will spring up. Clubs and societies, solvent and otherwise, will be bought up or amalgamated for the formation of an approved society in connexion with the scheme of national health insurance contained in the National Insurance Bill now before Parliament. I am afraid that the profession will suffer as under the Workmen's Compensation Act.

Under the Workmen's Compensation Act the injured man had free choice of doctor, and now as a great concession under the Insurance Bill the members are to have also free choice of doctor. Can anyone who pretends to know anything about the Workmen's Compensation Act be ignorant of the fact that a vast number of claimants come under the observation of a "select" few of the profession? Medical men are, of course, entitled to their opinions, and some hold stronger views than others on the question of placing men on the funds of a society or club on account of illness, but who, with any experience of contract practice, is ignorant of what takes place when men are members of several clubs at the same time when each club has a different doctor? What will happen when they have the choice of a dozen or more doctors I would not like to hazard. There is a certain amount of *esprit de corps* amongst the members of most clubs; this for one thing will vanish under the new system, but an increase of malingering, one of the inherent evils of "contract" practice, must be expected from the Insurance Bill, no matter how amended or administered.

The Bill will do good by relieving the overcrowded out-patient departments of our large hospitals, tending to diminish abuse and incidentally help to get men back to work quicker. I examined a man twice within the past few months for one of the companies. He had a wound of the hand which had become chronic. He was under treatment at one of the London hospitals, where he attended once a week, getting a bottle of lotion with which he was instructed to bathe the hand daily at home. I asked him why he did not attend a private doctor, and he said he could not afford to do so, which I fully believed. On making out my report to the company I mentioned that in such a case under the new Bill the man would have been able to command the services of a private doctor, who would have probably seen the man every day or every other day, dressed the wound, and that in all probability he would have recovered in a few weeks instead of a few months.

If Mr. Lloyd George can only help us to get rid of the "Prescribing Chemist" and the "Dispensing Doctor" by the aid of his Bill he will have earned the everlasting gratitude of all who have the best interests of the profession at heart.

I am, Sir, yours faithfully,

London, E.C., Nov. 20th, 1911. J. J. SCANLAN.

*** Dr. Scanlan makes shrewd points in his letter, but his closing sentence confirms his statement that his personal interests lie outside general practice. Many practitioners do not desire to relinquish dispensing, and strong arguments have been supplied to show that what appears to be a progressive move may act badly for the public as well as for many practitioners.—ED. L.

To the Editor of THE LANCET.

SIR,—As a practitioner in Lancashire I was present at the meeting of protest against the National Insurance Bill held at the Midland Hotel, Manchester, last Saturday, Nov. 18th. I was very pleased to see on the platform so many of the leaders of the profession in the Manchester district, and I listened to their inspiring "die-hard" advice tendered to us general practitioners. We were told that no man who wishes to retain the respect and esteem of his professional colleagues must serve on the proposed panels or assist in any form to carry out the provisions of the National Insurance Bill, unless the six cardinal points demanded by the British Medical Association be conceded. When we hear such advice given to general practitioners by our leaders, the consultant physicians and surgeons, we feel that we have a clear lead given to us.

May we then assume that these leaders of the profession are prepared to stand with us and to refuse to consult with, or operate for, any man who takes office or works under the provisions of the Bill? Also, will they give their guarantee that they themselves will accept no post whatever under the Bill? If we could have such an assurance we should march forward with solid front in opposition to the Bill.

I am, Sir, yours faithfully,

Cadishead, Nov. 20th, 1911. E. O. JAGO.

To the Editor of THE LANCET.

SIR,—If this Bill passes without severe amending it will be a grave danger to the public health, and will perpetuate the worst evils of cheap hospital treatment, cheap dispensaries, cheap surgeries, and club practice. There are a few points I wish to call the grave and serious minds of doctors and others to.

1. Will this Bill permit the doctors and assistants working under it to come under the Workmen's Compensation Act? That Act applies to incomes under £250, and I am certain that the gross income of 65 per cent. of doctors does not now exceed £200. It will be less under the Bill, more especially if dispensing is taken from them—an item sometimes equal to more than half their income. Let a clause be introduced to provide for this.

2. Does the Bill guarantee to the doctor life tenure of office? It does not. We know the trouble that asylum, public health, and Poor-law doctors have over this. Tenure is here doubly important seeing the Bill now hands the doctors absolutely over to the Friendly Society and other club members on the Local Insurance Committee.

3. Does the Bill guarantee superannuation to doctors? It does not. The working classes have been given State superannuation of 5*s* weekly. Almost all companies grant it. Why attack the doctors?

4. Does the Bill provide for payment of locum tenens when doctor is sick or on holiday? It does not. Here again the working classes are even now provided for, and will be more so if this Bill passes.

5. Does the Bill permit doctors, their wives, and families to insure against the benefits? This is doubtful, and should be cleared up.

6. How are we to find out the actual gross income of insured? About 885,397 persons, exclusive of firms and companies, pay under the income tax. How are we to decide regarding the 25,000,000 persons who will insure? Will the Income-tax Commissioners help?

7. How are we to find the gross income of "voluntary" persons under this Bill? Mr. Lloyd George in his book, "The People's Insurance," price 1*s*., on p. 132, says: "The Governor of the Bank can join" as a voluntary member, and that he means Mrs. George and her children to join.

8. What should the payment to the doctor be per member? Recollect that we shall be called upon to treat rich and poor, young and old, strong and weak, cripple and sound, and those so ill that they *must* be Post Office members, those over 60 years. Also, that as the Bill refuses medical or sick benefits until four weeks after a confinement we shall have a large amount of waiting sickness thrown upon us. It means that the work of doctors will be trebled under the Bill and their pay lessened by half. I think we should accept a *minimum* of 10*s*. per member per annum of those who are "compulsorily" insured, and for "voluntarily" insured of £160 income. This sum for each man, woman, child, and maid would work out at about (four children per family) 70*s*. per family per annum; not a large sum for good, efficient treatment.

9. Should doctors, on the other hand, be paid per visit? A few may recollect that in the *British Medical Journal* of June 22nd, 1889, I proposed the formation of a public Medical Service of England, while in the *Foresters' Miscellany* for August, 1886, I gave a very full account of the German insurance against sickness, accident, infirmity, and old age. I am more than sorry that the doctors in the British Medical Association did not adopt my proposal, as it would automatically have swept away club practice and would now have avoided all the present trouble, as we would be in a strong position to offer our services at a fixed price and so really be business men and not mendicants.

10. The confinement fee should be 42*s*. for the first and a definite fixed fee for instrumental and manual labours. At present the idea of the Bill is to be one of State subsidy to midwives. It is said that last year midwives conducted half the total confinements, this meaning a lessened income on the year of about £440,000 of doctors.

11. Will the doctors acting at voluntary hospitals be granted an income for treating sick assured members? Each should be paid a *minimum* of £500 yearly. After very arduous work I have collected statistics showing that not less than 4,136,263 persons in the United Kingdom during 1901 obtained medical, surgical, and midwifery relief, or 1 in 11 of the entire population, at the voluntary hospitals alone; that is exclusive of clubs, asylum, fever, Poor-law, and other hospitals. As showing the money value of this treatment, if we estimate it at 10*s* per person, including all operations, here is a money loss to doctors of not less than £2,068,131. Of course, the loss is ten times this, owing to our checking sickness, deaths, and chronic invalidity. Under this Bill the hospital patients will be doubled, just as they have been greatly increased by cheap club practice. Why therefore, cannot the State pay doctors, as it will pay well the other officials under this Bill.

12. The Bill does not provide a scale of fees for surgical operations. Why not? Under the Poor-law regulations there is a scale of fees for operations, confinements, and vaccination.

13. The Bill does not provide for dental treatment. This is perhaps one of the grosser defects of the Bill. I have estimated that £4,500,000 would duly provide for this most important feature of sickness and malnutrition.

14. Should doctors surrender dispensing to assured members. At present 60 per cent. of the income of many doctors is derived from dispensing. In their present chronic condition of genteel poverty, can they afford to make the chemists a present of it, and if not, will the chemists purchase the goodwill, and so recompense the doctors? I have proposed that the chemists form a sinking fund, taking it off the sick members of, say, 1*d*. per prescription, so as to purchase out the rights of doctors.

15. How many members to each doctor? This is the basis of the Bill to us, for if we are not very particular political trickery will come in, and so those doctors on the "wrong side" will not be "fed" by the local secretaries. A limit would also lessen bribery of many kinds. If each doctor could secure 1000 members at 10*s*. each, this would give £500 to each. But this high average cannot be obtained, as the army, navy, police, and all the civil service, as post office, telegraph, telephone, customs, inland revenue, will remain as they are. In 1901 there were 22,695 doctors *practising* in England and Wales, or on a gross average of 1 practitioner to 1433 persons (see also report of the General Medical Council of 1886 upon these averages). Suppose half the population become members, this gives 16,263,921 members, and at 10*s* per head a gross sum of about £350 per doctor per annum. Now when we deduct income and other taxes, conveyances, servants, part rent, and other items, it is impossible to see how doctors can for this pittance supply efficient medical treatment. The midwifery fees, with a steadily falling birth-rate—a rate which will soon fall to 12 per 1000—and with midwives employed, must not be counted upon.

16. Unemployment benefit to pregnant women. Our employing pregnant women in factories and mills has become a public laughing stock, an object of scoff and satire. Similarly with their re-employment four weeks after confinement. Thus the horrible and devastating maternal sick- and death-rates, and the juggernaut of infant murders—given out to be "nursed" on tea; and their deaths, encouraged by insurance. The want of such provision in this Bill—one whose promoters have the bluffing effrontery to officially describe in its preamble as one "for the prevention and cure of sickness"—is enough to hiss it out of existence in its present form, and to fit it for comic opera, were there not so terrible a tragedy in it.

This Bill cannot be administered honestly and with due consideration for the health of mothers and infants—the basis and backbone of national health—without the active approving help of doctors. It is for this reason I advise them seriously to have nothing to do with it, and to give their reasons to the sick and future sick public. A well medically administered Act would pull down the death-rate by 5 per 1000, the sick-rate by 50 per cent., and lessen the expenses of administering the Act by at least £5,000,000 annually.

I am, Sir, yours faithfully,

Liverpool, Nov. 14th, 1911. ROBERT R. RENTOUL.

To the Editor of THE LANCET.

SIR,—The previous letter and the one which appears in to-day's issue of THE LANCET on the above subject from the pen of Sir A. Pearce Gould appear to me to be so much to the point and so unanswerable that I am puzzled that the profession as a whole do not, before it is too late, abandon what, in my opinion, is a very untenable position and adopt the simple, and I think sound, principle of "payment for work done." I confess I find it difficult to understand the

mental attitude of those who can find anything to say in favour of the "contract system." My experience of such practice is comparatively limited, but I think I have seen quite enough of it to satisfy myself, at least, that it can never be satisfactory to either of the parties concerned. A couple of days after the introduction of the Bill, when I saw that the Chancellor of the Exchequer was proposing to perpetuate and to give State sanction to a system which was almost universally condemned, I, as one of his constituents and supporters, took the liberty of writing to him, regretting the proposal he had made, and saying I thought I could suggest a much more satisfactory plan of remunerating medical men. By the time I received his reply the profession had made what I cannot help considering a very regrettable *faux pas*. I venture to say that the plan advocated by Sir A. Pearce Gould and others will be found in practice to be simplicity itself. It differs in no essential particular from private practice, except that payment will be much more certain.

At first sight, however, there are two dangers: first, that some doctors may be disposed to run up a bill unnecessarily; and, second, that some patients may be too often on the sick list. These two really resolve themselves into one, and can be easily guarded against at one and the same time by docking the weekly payment of the patient after the attendances have exceeded a certain number. In this way both doctor and patient are checked at the same time.

I am, Sir, yours faithfully,

Bangor, Nov. 18th, 1911. RICHD. WILLIAMS.

To the Editor of THE LANCET.

SIR,—Cannot a modification of the capitation system be devised that would make it acceptable to the medical profession?

Firstly, a minimum sum per head must be fixed upon and put in the Bill. As this minimum means in all cases a maximum, it must be sufficient to avoid disputes between the profession, when split up into small bodies, and the Local Health Committees.

Secondly, the Chancellor in his opening speech laid great stress on the fact that when funds accumulated, as they would do, additional benefits would be extended to the insured in the way of increased sick pay, &c. No word, mark you, of increasing the pay of the medical men, through whose exertions the funds accumulated. Now, why not give medical men a direct interest in the measure by increasing their pay in an equal ratio? Sick pay goes up to 12*s.*, then an extra shilling per head to each doctor, and so on. In such a way we would have an incentive to give our best service and look keenly after any malingering. As long as human nature is as it is some such tangible inducement is probably necessary.

I am, Sir, yours faithfully,

Nov. 20th, 1911. W. ROBERTSON.

To the Editor of THE LANCET.

SIR,—I shall be grateful if you will permit me to direct the attention of medical men to the fact that a list is being compiled of medical men who are in favour of having medical benefits included in the Irish Insurance Bill. I therefore request that all medical men desirous of having medical benefits applied to Ireland will without delay send me their cards or postcards, bearing on them their signatures and the words "For Medical Benefits." When the list is complete it will be forwarded to the Chancellor of the Exchequer as evidence that Irish practitioners approve of the application of medical benefits to this country.

I am, Sir, yours faithfully,

SEYMOUR STRITCH.

13, North Frederick-street, Dublin, Nov. 19th, 1911.

To the Editor of THE LANCET.

SIR,—I think those who desire payment by a capitation fee are sufficiently answered by Mr. Lloyd George's statement in Parliament on Nov. 14th, when he said the demand of the Irish Medical Association for a capitation fee of 8*s.* 6*d.* was "financially impossible," and that 6*s.* might be taken as the "financial basis" of the Bill—that is, 4*s.* 6*d.* for the doctor and 1*s.* 6*d.* for medicines, &c. Truly a princely sum!

Surely the demand of 8*s.* 6*d.*, exclusive of medicines, &c., is little enough, even to those who wish for this method of perpetuating the hated club system. I might add that the financing of the scheme is no business of ours. The Bill is forced on us and we demand, not petition for, what we consider is our due, and unless we obtain it we absolutely refuse to work under the Bill.

I am, Sir, yours faithfully,

Heaton Park, Manchester, Nov. 20th, 1911. E. T. LARKAM.

To the Editor of THE LANCET.

SIR,—It may seem absurd to remind your readers that a part is not equal to the whole. That it is not superfluous, however, to do so is clearly indicated by the confusion that has arisen over what constitutes "contract" practice, especially in relation to the Insurance Bill. This confusion, due to transference in thought to the whole of qualities that belong necessarily only to a part, is plainly instanced in the letter of Dr. B. Hall published in THE LANCET of Nov. 18th. Dr. Hall there says: "In my letter of Nov. 4th I referred to the fact that a considerable percentage of medical men is now, and has been for generations, working on the contract system in which payment is by salary. Surely everything that can be said against the *per capita* system applies to this system of payment by salary." That is exactly what it does not do, and it is the inability to see why it does not, that is creating much confusion and waste of argument, and causing many outside of the medical profession to wonder at its determined opposition to what would appear at first blush to be a reasonable and, provided the *per capita* payment is "adequate," a profitable plan.

It is a fact that the *per capita* system of payment, so far as medical service is concerned, is radically and essentially bad, and that quite independently of the amount of any probable *per capita* payment. "Why," it may be asked, "is a plan which works well with other occupations necessarily bad in the practice of medicine?" The answer is simple. Because the services demanded of the medical practitioner are entirely different in kind and in character of obligation from those of any other occupation or profession. They are imperative on the score of humanity, and there can be, in consequence, no arbitrarily fixed limitation set to the amount of service that may be demanded at a given time of each individual practitioner, or to the time at which or the hours during which he shall be required to labour.

This fact may be best brought out by a consideration of what actually happens in the course of (1) private practice; (2) so-called "club practice"—i.e., contract practice based on a *per capita* payment system; and (3) salaried contract practice, of which the naval and military medical services may be taken as the best known and highest types.

Private practice has this in common with "club practice," that the medical attendant is the employee of each of his individual patients. The *primâ facie* claim of all patients on the doctor's services is equal. Priority of service can be demanded only on the score of priority of summons or of obvious urgency. If two or more patients happen urgently to need the medical man's services at the same time, he attends to the first-comer first, and later, to all subsequent comers in turn—there are no closing hours for the doctor—provided they have not already betaken themselves elsewhere for assistance, which in private practice is not unlikely to happen. In the latter event these patients do not have to pay the medical man for what they have not had. The fee that would have been his, had he attended them, goes to the doctor who actually did attend. Moreover, having a fee to pay for each separate act of service rendered, the patient is not so apt to summon his medical attendant unnecessarily, and even if he did, it would be doctor's right, when already overtaxed, to forego his fee and refer the patient to some other medical man.

In club practice, on the other hand, each patient has already paid the appointed club doctor—or the one he may choose from an authorised panel, if any—for every service that can be demanded from him during the currency of his subscription. If a number need him simultaneously or in rapid succession, each has theoretically an equal right to his instant service, for all alike have paid him

equally. Supposing that in the presence of some case of serious emergency the better-disposed patients are content to yield place until he has done with the urgent case, they merely postpone their own call on his services, and expect him, and rightly so, at once to direct his attention to them. Thus a string of claims upon his time and strength may, and often does, accumulate in such a way that for long periods together the doctor is deprived of proper time for repose, for meals, or for leisure for recreation or study, the first of which is essential for the continued performance of good work, and the second necessary in the public interest. The medical man in private practice can, if he chooses, and he often does, decline to take more obligations than he can adequately fulfil without undue strain on his health and reasonable comfort. Those that he cannot attend when need arises are free, without being mulcted twice for the same service, to seek aid elsewhere. But in club practice it is not so. Having taken a number of *per capita* payments by contract he is bound to fulfil his obligations with equal loyalty to everyone, regardless of the cost to his own health and well-being and of the results to his own family life. And although the club or Government authority is not his real paymaster it will insist on his performing to the full the duty he has undertaken. When one or the other—the doctor or the patient—must suffer, its sympathy is practically always on the side of its own *protégé*, of whose interests it is the custodian.

Now let us look at the difference between *per capita* club practice and salaried practice, let us say, in the army. Both, it is true, are "contract" practice. But the army doctor enters the service as the employee, not of each individual patient, but of the Government which pays him. He arranges terms and conditions of service—or rather accepts those which the profession has secured for him—not with 1000 masters having different, often conflicting, interests, but with one master. He is responsible, not to his patient, but to his employer, the Government. His employer, advised and represented by his superior officers in the service, knows what is humanly possible in the way of labour and what is not. It realises—sometimes, it is true, not until it has had a rude lesson—that to get the right kind of men, competent and willing to do the work, it must make the terms of its service attractive. It arranges for him his hours off duty, during which under ordinary conditions no work can be demanded of him, thus securing to him time for repose, leisure, and relaxation. He is assured of social position and of a certain amount of social life. Provision is made for increase of pay and rank with years of service, and his future is provided for by either a pension or a retiring allowance at his choice. Opportunity is periodically afforded him by leave on full pay for both recuperation and professional study. His work is thus collected into one consistent whole under one master, to whom alone he is responsible. How different is the case of club practice! Here the practitioner's obligations are distributed among many distinct individuals with necessarily conflicting interests, to each of which he is personally responsible as to a different master. To this fact are traceable all the intolerable results of the club system—the inconsiderate demands, the frivolous complaints, the exactions, the incessant grind, resulting in an overworked and often underfed, or at least improperly fed, doctor, who cannot himself carry out the very precepts it is his duty to instil insistently into others. What wonder that his *clientèle* in its turn should suffer from scamped work, inadequate care and attention, waning skill through lack of opportunity for study, and the absence of that magnetic sympathy between doctor and patient which is half the battle in the struggle with disease.

The question of a salaried medical service under the Bill need not be discussed, for there are other and more practicable plans, as, for instance, that suggested by Sir Alfred Pearce Gould in THE LANCET of Nov. 18th. The point is, that whatever other methods of payment may be found suitable, a *per capita* payment, which renders the medical man a slave to the caprices of a number of distinct and independent masters, is radically bad, as has hitherto been consistently held by the profession at large. Certainly a method that is radically bad for the medical profession—and through them for the individual patient and the public at large—ought not to be made compulsory.

I am, Sir, yours faithfully,

Nov. 20th, 1911. EXPERTO CREDE.

"SPONGE EDUCTION."

To the Editor of THE LANCET.

SIR,—I have read with great interest the annotation on "Sponge Eduction" in your issue of Nov. 11th, p. 1348, and note the remark that the method seems to have originated in America.

The late D. J. Hamilton, professor of pathology in Aberdeen University, was one of the earliest workers on the subject of "Organisation of Porous Dead Materials," and advocated the use of sponge in accelerating the healing of indolent ulcers. His method was somewhat different from that described by Dr. E. Ward, inasmuch that thinner layers of sponge were used, and that instead of pulling on the sponge when filled with organising vascular tissue, a second layer was applied. It may be of interest to quote his plan as described in his "Text-book of Pathology," published in 1889:—

> The wound should first of all be rendered aseptic, and any sloughy shreds should be got rid of. A close-meshed Turkey sponge is the best for the purpose. It should be cut into thin sections in the freezing microtome, and the larger they are the better. The sponge should be wrung out of freezing fluid "A," and be stuck on the freezer with mucilage. The sections should not be more than from 1/16th–1/32nd of an inch in thickness and may be applied in one large continuous piece or in several small ones. Great care should be taken that the sponge does not come nearer than 1/8th to 1/4th of an inch from the epithelial edge or the latter will be sure to undermine it and prevent its adhering. In a few days it will be found to be filled with organising vascular tissue. A second layer considerably smaller than the first should now be placed on the surface, followed by a third, and so on, until the wound is healed. Indolent ulcers take on a remarkably healing and healthy look within a very short time of its application. The sponge before being cut must be soaked in a dilute solution of caustic potash for several hours, and subsequently in a dilute solution of nitric acid for a night. It should be thoroughly washed in water after this and the sections may be kept in watery solution of carbolic acid (1 to 40) until required. The dressing should be strictly antiseptic, the ordinary dextrine silk forming an excellent protective covering. Freezing fluid "A" is composed of 4 parts of a syrup, containing 28·5 grm. of pure sugar to 30 c.c., 5 parts of a mucilage of gum acacia of the strength of 45·6 grm. of gum to 2400 c.c. of water and 9 parts water. The whole boiled and saturated while hot with boracic acid and filtered when cold through muslin.

Hamilton's experiments were published in the *Edinburgh Medical Journal* in 1881 and were confirmed by Marchand later. As regards the fate of the sponge in the tissues, Hamilton, on examination of parts in which a piece of sponge had become ingrafted, could find no trace of it, and concluded that the keratode of which it is composed is absorbed after fulfilling its mission as a framework for the tissues to grow in.

It seems to me that Hamilton's method is to be preferred to the more recently described one, because one would be more likely to get a firmer pad when the framework for the granulations to grow in is left until absorbed instead of being pulled away.

Of course, one would not reduce the size of each layer of sponge, as recommended by Hamilton, if it were desired to build up a wound as in the case of a lacerated finger.

I am, Sir, yours faithfully,

Banff, Nov. 13th, 1911. WM. MANSON FERGUSSON.

RECENT DEVELOPMENTS IN THE RECOGNITION, TREATMENT, AND PROPHYLAXIS OF SYPHILIS.

To the Editor of THE LANCET.

SIR,—In reading over the report of his first Hunterian lecture I notice that Major H. C. French quoted me as having stated that I "only succeeded in demonstrating the spirochæta pallida in 152 out of 202 cases of syphilitic sores" and as having suggested "that in the remaining 25 per cent. of cases local antiseptics or other causes may have prevented the demonstration." This does not convey the impression I intended, as is shown by reference to the original paper,[1] in which I stated: "I may mention that out of 202 syphilitic sores which I have examined I have established the diagnosis by means of the dark-ground apparatus in a few minutes in 152. I think this number would be much larger if in 40 out of the remaining 50 cases an antiseptic had not been previously applied to the sore. In a number of the 152 cases in which the diagnosis was made so rapidly

[1] Brit. Med. Jour., Sept. 23rd, 1911, p. 686.

I have had the opportunity of submitting the sore to examination by expert clinicians, who confessed that on clinical grounds they would not have taken the responsibility of diagnosing them as syphilitic."

I am, Sir, yours faithfully,

L. W. HARRISON,
Major R.A.M.C.

Rochester-row, S.W., Nov. 15th, 1911.

FEES TO SHIP SURGEONS.

To the Editor of THE LANCET.

SIR,—Referring to the letter on the above subject from Dr. R. R Rentoul, the writer must not be too "glad" at escaping the thanks of ship surgeons, as his escape is possibly due to their ignorance of his endeavours on their behalf. Some 16 years ago Dr. Dutton brought the subject of charging passengers the usual fees for medical attendance to the notice of shipping companies; eleven years ago I approached the P. and O. Company on the same matter, and a little later Dr. Elder worked on similar lines. It is therefore not altogether surprising that some of us were ignorant that it was to Dr. Rentoul and his efforts five years ago that all our thanks were due.

Dr. Rentoul warns us that a few surgeons are helping to ruin his proposal—he does not say what that proposal exactly is—by objecting to submit their bills to the captain. I have met a great many ship surgeons; to their credit all of them do object to this practice, most of them feeling that the relations between patient and surgeon are confidential and concern no one else. We should all be glad to know with what object such a rule was made. Is it that the accounts may be revised and criticised by the commander? Or is it to check abuse? If for the former purpose, it seems an unwarrantable interference; if for the latter, it is not quite complimentary to the surgeon. Perhaps Dr. Rentoul may be able to enlighten us on the real object.

I am, Sir, yours faithfully,

T. W. ATKINS.

Nov. 22nd, 1911.

ELECTION OF DIRECT REPRESENTATIVES ON THE GENERAL MEDICAL COUNCIL.

To the Editor of THE LANCET.

SIR,—We wish to take the earliest opportunity of thanking most sincerely every one who has supported us at the recent election, in which we have been returned by so handsome a majority; and we feel particularly grateful to those busy workers who, having little leisure, yet have found time to attend committees and meetings, and to do all in their power to further our candidature.

We are, Sir, yours faithfully,

HENRY W. LANGLEY BROWNE.
H. A. LATIMER.
T. JENNER VERRALL.

Nov. 20th, 1911.

UNIVERSITY COLLEGE HOSPITAL: A LECTURESHIP FOR MEDICAL RESEARCH.—This hospital has received from Mrs. C. Kayler a sum of £1000 to found and endow a lectureship in memory of her father, the late Dr. Sydney Ringer, formerly consulting physician. The lecturer will be selected every two years, and will take as the basis of his lecture original research carried out by him in the physiological or pharmacological laboratories of University College or in University College Hospital Medical School.

A BALL will be held in the New Banqueting Hall, Savoy Hotel, London, on Wednesday, Nov. 29th, in aid of the funds of the Army and Navy Male Nurses' Coöperation. The object of this coöperation is to afford to the public thoroughly well-trained male nurses and sick attendants of good character, and to provide employment for retired non-commissioned officers and men of the Nursing Section of the Royal Army Medical Corps and members of the Sick Berth Staff of the Royal Navy. Tickets—price, 1 guinea each; for parties of four or more, 15*s.* each—may be obtained from Mrs. Frank Juler, 24, Cavendish-square, London, W.; or Miss Ethel McCaul, honorary secretary, 11A, Welbeck-street, Cavendish-square, London, W.

THE DEMAND FOR PUBLIC ABATTOIRS.

(FROM OUR SPECIAL SANITARY COMMISSIONER.)

(Concluded from p. 1435.)

FAILURE OF ABATTOIR REFORM AT LIVERPOOL.

Defects of the Birkenhead Foreign Cattle Lairage.

LIVERPOOL has not been particularly successful in solving the slaughter-house problem. First and foremost, it has allowed a gigantic business in the slaughtering of foreign cattle to go to the other side of the Mersey, though there were no proper slaughter-houses at Birkenhead. Even to-day it cannot be said that the lairage and the abattoir provided for the foreign cattle at Birkenhead fulfil modern requirements. Without entering into details, the fact that old factories or mills have been converted into slaughter-houses is a sufficient condemnation. A slaughter-house must be specially designed and constructed; existing buildings cannot be adapted for that purpose. If when the foreign cattle trade gave promise of expansion the corporation of Liverpool had built a large model abattoir the meat industry might not have passed over to Birkenhead. To the nation at large, of course, it does not matter on which side of the Mersey the foreign cattle are landed and killed. But the public is interested in seeing that this is done in abattoirs where every facility exists for the inspection of the meat and its cleanly handling. At Birkenhead there is an insufficient staff of inspectors. The principal inspector admitted to me that he did not see all the animals at the moment of killing, but urged that if he found a diseased viscus he would know to what lot of cattle it belonged and would hunt out the carcass. In so important a place as the Birkenhead foreign cattle lairage and slaughter-house there should be several veterinary surgeons on the spot, and no viscus should be separated or removed from the animal till it is inspected.

Mills Converted into Abattoirs.

Considering that a large trade in the importation of American cattle has grown up at Birkenhead on premises absolutely unsuitable for the purpose, and where the control is of the crudest, it is surprising that the city of Liverpool should not have attempted something better. The rival city of Manchester, in any case, did not lose the opportunity. As soon as the Ship Canal was built, enabling ocean steamers to reach Manchester, the Foreign Animal Wharf at Old Trafford was constructed. Though this establishment is not perfect in all respects, as I explained in my last article, still it is a real lairage and abattoir. Everything was planned for this express purpose, while at Birkenhead there are no such buildings. In this latter place cattle are driven to the upper floors of the old warehouses or mills. Instead of a lairage the cattle are lodged upstairs, and the dirt they make is drained out through a window into a big pipe suspended in mid-air. On the ground floor the cattle are slaughtered. Instead of air and light coming from the roof of the killing floors, there is no light, no air from the roof, because there is no roof; it is a ceiling and not a roof, and it is a watertight ceiling, because there are cattle on the floor above. That does not help to ventilate or to illuminate the place. It is astonishing that a proper wharf, lairage, and abattoir have not been built in some other part of Birkenhead. Liverpool, however, makes no attempt to draw the trade to its side of the Mersey.

Abattoir Nuisance in the Heart of Liverpool.

The strange thing is that the need of a proper abattoir at Liverpool has been acknowledged for many years. The butchers themselves at the beginning of the nineteenth century already realised that it was better to work together than separately. As previously related in these columns, they grouped together several businesses and established in the centre of the town a joint abattoir.[1] In those days there was no knowledge of the dangers that accompany the butcher's trade, but of recent years the corporation was obliged to buy out all the private butchers and convert their joint slaughter-house into a municipal abattoir. The premises, however, are so unsuitable for the purpose that killing was discouraged, and now a part of the slaughter-houses has been converted into a meat market. Still there

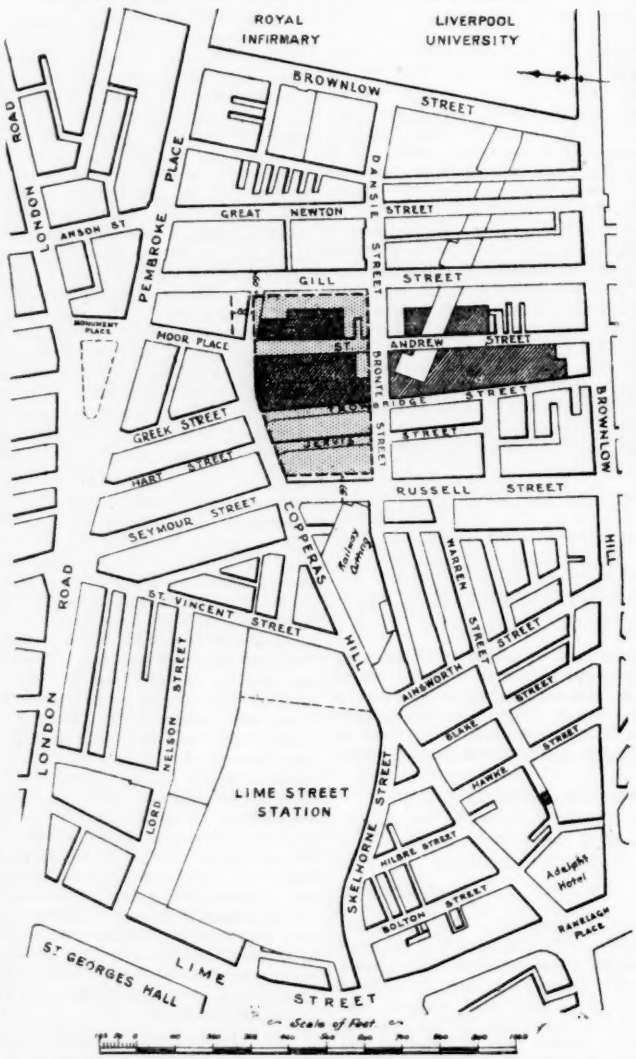
[1] THE LANCET, August 22nd, 1908, p. 586.

is some killing done here, especially of sheep. Then there is a horrible place it was my misfortune to visit where putrefied or condemned meat and carcasses are kept till such time as they can be removed to the destructor. The stench is sometimes appalling, and this abomination is barely 110 yards from the Liverpool University and the Royal Infirmary. Both these buildings also are on a higher level. It is incredible that such an industry should be allowed close to and between the hospital, the University, and the principal railway station and hotels of the town. The sanitary authorities of Liverpool have insisted over and over again that an abattoir, especially such an antiquated and insanitary abattoir, should not be allowed to stand with the University and hospital so close on one side, and on the other side St. George's Hall, Lime-street station, the theatres, hotels, museums—in a word, the magnificent centre of which Liverpool is justly proud. Dirty work is done at the abattoir. Apart from the killing, hide sorting and salting do not make up an ideal occupation. The offal, the intestines, the manure, the diseased carcasses, and the putrid meat have to be handled and carted from the abattoir through the streets, and the animals destined for slaughter are driven along the same streets to the abattoir. All such traffic should not take place in the very heart of the city. The whole business should be removed to an open, airy suburb where there are few or no inhabitants.

The Private Slaughter-houses of Liverpool.

The construction of a proper abattoir on a suitable site would be the more easy, as there is no reason to fear competition from the butchers. There used to be 25 private slaughter-houses at Liverpool, and these are now reduced to 17. The corporation has very wisely refused to grant any more licences. Some of the private slaughter-houses have only annual licences, and these could easily be stopped. Even if legal sanction for the compulsory closure of the remainder, which are worked on life licences, could not be obtained, they do so little work that their competition would not interfere with the prosperity of a model municipal abattoir. In visiting some of the private slaughter-houses I came across the butcher who supplies the highest classes in Liverpool with the best meat. For slaughter-house he utilised a small barn. The floor, however, was of flagstones draining to a gully. Formerly there was a big cesspool in the middle of the barn. Now this has been filled up and concreted and the place drains into the sewer. But when first built the barn was in the suburbs and probably there was no sewer. To-day it is considered to be in a central district. Nevertheless the slaughtering work continues, though there is only inadequate equipment. The best use is being made of the buildings that is possible in the circumstances, but they are unsuited for the work. For absolute lack of everything that is needed it would be difficult to surpass the wooden shanty belonging to the breeder of celebrated pedigree pigs. So wonderfully and fearfully made is this structure that I implored Dr. Hope to take a photograph so that future generations might know what was still tolerated at the beginning of the twentieth century. Dr. Hope's annual reports on the health of the City of Liverpool are rendered more interesting and instructive by numerous photographs. These supply precious testimony as to the insalubrious condition of much property that has now been reformed out of existence. But the private slaughter-house in question still exists, and to my great joy I found that a photogravure of it had appeared in the medical officer's report for 1909.

SITE OF PROPOSED PUBLIC ABATTOIR FOR LIVERPOOL.



Dotted area indicates proposed site under a scheme which should not find favour; it is too central; black area shows present abattoir buildings. Note the nearness of the infirmary and the University at the top of the map, and of St. George's Hall and the fine centre of the city at the bottom. (Reproduced from the corporation surveyor's scheme.)

Slaughtering in a Shanty.

In many respects, except in regard to the slaughter-house, or shanty as it should be called, its owner has manifested a keen appreciation of the beneficent effects of good sanitation. The housing of the pedigree pigs is perfectly ideal. First of all every pig is carefully and frequently bathed, then he is allured into a luxurious stall which he enjoys all to himself, though it is as big as a horse stall. The floors are of concrete, the walls are well lime-washed, and there are eight louvred windows at the back of six stalls. Opposite, the upper parts of the doors open like windows to admit fresh air from a large field. So much light, ventilation space, and continual cleaning is rarely provided for human beings; but then these pedigree pigs can readily be sold for £30 each. All this lavish expenditure and supreme carefulness over living pigs made the contrast with the slaughter shanty the more marked. Instead of solid walls with louvred windows there were a few planks nailed together, and some tar to save them from rotting too quickly. The roof is so low that the lowest portion is only 4 ft. 6 in. from the ground. Not one but all the walls are of wood, whitewashed inside and tarred outside. To call this a slaughter-house is quite

preposterous. It is such a ramshackle structure that it seems incapable of bearing the weight of a good heavy bullock if strung up to one of the dust- and dirt-laden rafters within. But bullocks are killed here and they do not drag the building down with them. Nevertheless, this should not be allowed, particularly as the shanty abuts on a high road and there are dwelling-houses close at hand. The pavement outside the shanty is most irregular. Old bits of broken asphalte have been thrown over one part and have formed themselves into strange-shaped lumps. In another direction there are nubbly stones, but in all directions the water mixed with blood and manure from the slaughtering of animals filters down easily into the subsoil to create a permanent condition of impurity. The intestines and useless offal are removed at night to the farms, but tubs get impregnated, and porous wood is not the right material to hold such organic matter. There is no thought given as to modern processes and the scientific apparatus now used for speedy and cleanly work.

Liverpool Corporation Studies Continental Abattoirs.

The existing evils, fortunately, are fully admitted. Nobody attempts to apologise or to find extenuating circumstances so as to justify their continued existence. On the contrary, the corporation has appointed a special sub-committee, consisting of Sir Charles Petrie, several aldermen and councillors, the town clerk, the corporation surveyor, the city engineer, the superintendent of markets, and the medical officer of health. These gentlemen have proceeded to the continent so as to study and report upon the importance of centralising the live cattle markets, abattoirs, dead meat markets, and the allied trades on one site. Of course, there were also many technical matters for them to investigate. The committee started on their journey in the spring of 1909, and they visited the abattoirs and cattle markets of Brussels, Cologne, Frankfort, Munich, Vienna, Dresden, Berlin, Budapest, and a few English abattoirs. On their return they issued a report with many illustrations. This report shows that they were greatly impressed by the large amount of land devoted to the abattoirs and cattle markets of continental towns—32 acres at Brussels and 93 acres at Berlin. Then they note that the abattoirs were outside the towns and had such railway accommodation as rendered it unnecessary to drive cattle through the streets. Of course, the immense superiority in structure, in methods of inspection and handling meat, did not fail to impress the Commission. Then came the great practical fact that though the cost varied from £400,000 at Cologne to £800,000 at Dresden, these abattoirs are self-supporting. After such an object lesson, all the Commission could say was to urge their fellow citizens of Liverpool to go and do likewise. For a moment it was thought that this excellent if obvious advice would be followed. Liverpool would then have, close to the river as part of the port and in touch with the railway and canal system, a central cattle market adjoining a modern model abattoir, with annexes for the treatment of all the by-products. All this would be so modern, so scientifically contrived and controlled, that it would provide the ships in the harbour and the population in the town with a safe, reliable meat-supply, while realising such profits as to give relief to the overburdened ratepayer. But it was not to be. Prejudices, apathy, the timorous feeling that perhaps somebody might lose something, stood in the way, and the proposals made were rejected. Much to the detriment of the interests of the city, the whole affair is once again in the melting pot. Several members of the Special Commission who went abroad and thoroughly studied the question have resigned out of disappointment. That is why to-day Liverpool, like Newcastle, joins in the demand now spreading from town to town for public abattoirs—not a mere tinkering with the question, but complete abattoirs with cattle markets adjoining, such as in Germany have proved of great benefit to the health of the people and the finances of the municipalities.

ROYAL METEOROLOGICAL SOCIETY.—The council of this society has awarded the Symons gold medal to Professor Cleveland Abbe, of the United States Weather Bureau, in recognition of the valuable work which he has done in connexion with meteorological science. The medal will be presented at the annual meeting of the society on Jan. 17th, 1912.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Medical Inspection of School Children.

THE recent report of Sir George Newman, medical officer to the Board of Education, on the great good which has resulted from the systematic medical inspection of children attending public elementary schools has prompted the inquiry as to what is being done and has been done in Manchester in this direction. An immense amount of good work is being done by the schools medical officer and his assistants. The statutory obligation has been carried out with great thoroughness, and must be productive of immense and lasting benefits to the children of the poor. The cost of elementary education to the ratepayers has been increased by about £14,000 by the extra duties imposed by Parliament, the duties including the care of the feeble-minded and other weakly children and the feeding of necessitous scholars. There are nearly 200 schools in the city, attended by about 120,000 children. The all too common defects of sight and hearing, the state of the teeth, uncleanliness, and diseases of the skin have to be constantly attended to. In special cases—last year over 4000—examinations were made by the school medical authorities at their offices, and the condition fully investigated. These cases had previously been seen by the medical officers at the schools. These special cases are of very great importance, and their investigation and treatment necessarily occupy a large amount of time as compared with what are called routine cases.

Purchase by South Manchester Guardians of Mansion and Estate for a Convalescent Home.

A notable advancement in Poor-law administration in Manchester has been achieved in the partial solution of two grave problems which face guardians here as elsewhere. How can the white plague, which largely helps to fill and overcrowd our workhouses, be arrested; and how can recovery of the sick poor be furthered so that they may be able to return again fit for work? The Local Government Board has approved of a scheme proposed by the South Manchester guardians for acquiring a mansion and an estate in the neighbourhood of Abergele, in North Wales, for the treatment of convalescents and of sufferers in the first stage of consumption. Naturally there was considerable opposition offered by the local governing bodies of Abergele, but this has been overruled. At the present time the South Manchester board of guardians has to find accommodation for its convalescents in institutions in all parts of the kingdom at a cost varying from 2 to 3 guineas a week, the average number of cases running to about 50. Consumptive patients who have reached the stage when the disease is contagious will not be sent to Abergele, and the institution there will not be an infectious diseases hospital in any sense of the word.

Smoke Abatement Exhibition.

This exhibition, promoted by the corporations of Manchester and Salford, was officially opened on Nov. 10th with a view to enable the public to inform itself of the means whereby the emission of smoke from chimneys can be reduced, if not actually abolished, so as to obtain a purer and more wholesome atmosphere in which to live and breathe. Apart from the bad effects of smoke and other products of industrial manufactures and house chimneys, the pecuniary loss is very great. It is calculated that smoke costs Greater Manchester £1,000,000 a year. To householders also a special appeal for the diminution of "home-made smoke" is made by the exhibition of apparatus for the more extended use of gas, electricity, and smokeless solid fuels in the domestic kitchen. Open kitchener grates at present in use are said to be responsible for nearly 60 per cent. of the total smoke poured out over the city. If this be so the sooner the citizens themselves take up the reform the better. There is a "gas home" and an "electric home" showing how these two agents can be successfully, effectively, and economically employed for domestic purposes.

Appointments of Women by Boards of Guardians.

At a meeting of the South Manchester board of guardians held on Nov. 10th it was proposed "That it be a rule in future that one of the three resident medical officers shall be a woman." The motion was not carried. It was not felt

desirable to tie the hands of the board as to its policy, while one woman representative favoured the making of appointments solely according to the qualifications of candidtions and regardless of sex.

National Insurance Bill.

A meeting of medical men of Lancashire and Cheshire was held on Saturday, Nov. 18th, in Manchester. The meeting had been called—

in view of the facts that the Government has entirely failed to satisfy the medical profession in the scheme of medical benefits proposed in the National Insurance Bill; that it has not met the requirements of the British Medical Association; and, further, that Members of Parliament and the public are in ignorance of the universal dissatisfaction existing in the profession, and its inability to work under the Bill as at present drafted.

The demands on which the meeting insisted were the six cardinal points which have already been formulated by the British Medical Association. The meeting was attended by more than a thousand members and was presided over by Mr. G. A. Wright, of Manchester. Dr. E. S. Reynolds, of Manchester, proposed the following resolution, which was passed:—

That in the opinion of this meeting the National Insurance Bill as at present framed does not satisfactorily embody the demands of the medical profession, as defined in the "six cardinal points" formulated by the British Medical Association; that the scheme of the Bill in its present form is unworkable and will create a condition of affairs not only detrimental to the medical profession, but also dangerous to the public health—therefore this meeting of the medical profession of Lancashire and Cheshire expresses its determination, in the event of the Bill becoming law in its present form, to unite with the whole of the profession in declaring its inability to undertake the duties which the Bill proposes to assign to it.

Nov. 21st.

WALES.

(FROM OUR OWN CORRESPONDENT.)

Brecknockshire School Medical Inspection.

THE population of the county of Brecknock is approaching 60,000, so that it is not surprising to find the school medical officer, Mr. J. C. Bridge, who is also county medical officer of health, reporting to the local education authority that he finds it impossible single-handed to follow up satisfactorily those children whom he finds on inspection to be defective. Of the children already examined by him, and whose parents have been advised to seek for them medical treatment, only 23 per cent. followed this advice. He has suggested to the authority that the homes of the children in question should be visited by a nurse, who might persuade the parents to have their children medically attended to. He has endeavoured to obtain for this purpose the services of the district nurses, and although in a few instances the district nursing committees have agreed to this course his proposals have not met with much encouragement.

Honorary Degrees—University of Wales.

At the graduation ceremony of the University of Wales, held at Bangor, the honorary degree of LL.D was conferred upon Sir Isambard Owen, Vice-Chancellor of the University of Bristol, who was one of the founders of and for several years senior deputy chancellor of the University of Wales. The honorary degree of D.Sc. was conferred on Dr. W. T. Edwards, the senior medical practitioner in Cardiff, who was largely instrumental in establishing the medical school at Cardiff.

A Milk Depôt for Cardiff.

About four years ago the medical officer of health of Cardiff, Dr. E. Walford, reported to the Cardiff corporation upon the desirability of establishing an infants' milk depôt in the town. He then pointed out that to sell pasteurised or "humanised" milk in a municipal milk depôt without any medical control, as was being done in some English towns, seemed to be a waste of money, for there appeared to be no means of knowing whether the results were good or bad He urged, however, that in the first instance there should be established an infant consultation, following the example of similar institutions in France. This suggestion was adopted by the corporation, and an infant consultation was started which has since been doing excellent work under the supervision of Dr. Elizabeth Elder, who has been assisted by a staff of lady health visitors. Within the past few months the question of providing a municipal milk-supply for all persons, and not only for infants, has been under the consideration of the health committee of the corporation, and Dr. E. Walford was instructed to report as to the practicability of such a scheme. His report has recently been issued, and in it, after describing the Rochester (New York) municipal milk-supply and the Danish method of coöperation among dairy-farmers, he pointed out that although the supply of milk on a large scale to all classes of the community under conditions similar to those in force in Denmark was a most desirable end to attain, it was a scheme which properly belonged to private enterprise, and at present, at any rate, seemed to be beyond the legitimate scope of municipal sanitary administration. He asserted, moreover, that no legal powers existed authorising municipalities to carry on the business of milk purveyors to the inhabitants of the district under their control. He strongly urged, however, that a milk depôt should be started in connexion with the infant consultation, so that there might be complete supervision of every detail in the supply of milk from the time it left the cow until it reached the consumer.

Nov. 20th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Edinburgh University Court.

THE Edinburgh University Court met on Nov. 13th. After the adoption of a commemorative minute with reference to the late Dr. Joseph Bell, and recording its appreciation of the services rendered by him to the University, the Court again considered the question of inclusive fees, but no decision has been made public. Various applications for recognition as lecturers were granted, including those of Dr. W. Ford Robertson, Edinburgh, as a lecturer on the Pathology of the Brain and Nervous System and Bacteriology in its Relation to Mental Diseases; and of Miss Winifred Muirhead, L.R.C.P. & S. Edin., on Bacteriology in its Relation to Mental Diseases. Both these courses are to qualify for the recently established Diploma in Psychiatry.

Royal Victoria Hospital for Consumption, Edinburgh.

The annual report of the Royal Victoria Hospital for Consumption contains an interesting account of the progress of the Edinburgh anti-tuberculosis scheme. With the original Victoria Dispensary as a centre, the committee of management has a network of agencies which appear likely rapidly to acquire a complete supervision of the tuberculosis existing in the city. At the dispensary are seen such patients as are suitable cases for treatment at home. There also is carried out the "march past" of members of households in which cases of tuberculosis have occurred, and by this means early cases are at once detected. From the dispensary notification of fresh cases is made to the public health authorities of the city. A close coöperation is now maintained between the dispensary and the public health department, the records of the dispensary being at the service of the medical officer of health of the city, while in return the municipality has granted towards the working expenses of the dispensary an annual sum of £450 From the dispensary cases suitable for sanatorium treatment are drafted to the Royal Victoria Hospital, and advanced cases are sent to the Hospital for Advanced Cases, which is supported by the municipality. A farm colony is maintained for the further treatment of sanatorium patients, and this agency during its first year has fully proved its value. A dental department has now been opened at the Royal Victoria Hospital, at which the teeth of every patient are carefully inspected and treated. The school for tuberculous children within the grounds of the hospital has continued to prove a great success, and without exception every child has done well. A staff of physicians and nurses attached to the dispensary undertakes visiting of the homes of the patients. During the past year 2242 visits were paid by the medical officers, and 5273 by the nurses. With regard to the expenses of the hospital and dipensary, the committee reports a reduction in the cost per patient of £3 5*s* 7*d* during the year; but notwithstanding this, the ordinary expenditure exceeded the ordinary income by the sum of £2090. The farm colony, for the maintenance of which a separate fund was instituted, will, it is hoped, soon pay its own expenses.

The Sir John Struthers Lectureship.

The first of the lectures under the Sir John Struthers lectureship was delivered before the Royal College of Surgeons of Edinburgh on Nov. 17th by Professor Arthur Keith, conservator of the Museum of the Royal College of Surgeons of England. Professor Keith took as his subject "Anatomy in Scotland during the Life and Times of Sir John Struthers." The chair was taken by Mr. George A. Berry, the President, and among those present were Principal Sir William Turner; Sir James Russell, Edinburgh; Professor A. Robinson, Edinburgh; Professor Johnson Symington, Belfast; Professor J. Musgrove, St. Andrews; and Professor R. W. Reid, Aberdeen. The lecturer showed that at the time when John Struthers, in 1841, commenced the study of medicine the study of anatomy was still in its infancy. The development of the human embryo was almost unknown, the body was supposed to consist of "textures" and humours, and fossil remains of man were unknown. In the succeeding years the anatomists one by one became followers of Darwin, and gradually there took place a revolution in the world of anatomy—a revolution in which Scotland played her part and in which there had been no more courageous rebel than Sir John Struthers, the founder of that lecture. Until the day of his death in 1899 Sir John Struthers fought continuously for freedom to teach and to carry on research. The problems of anatomy were yielding most rapidly to those who used the experimental method, and the modern anatomist had to study the living as well as the dead body. At the close of the lecture Sir William Turner expressed the thanks of the meeting to Professor Keith.

Scarlet Fever in Aberdeen.

For some time scarlet fever and measles have been epidemic in Aberdeen to an unusual extent. For the last four weeks there have been 257 cases of scarlet fever notified.

Representative to the General Medical Council.

The Aberdeen University Court has appointed Professor J. T. Cash, dean of the medical faculty, to be a representative of the university on the General Medical Council in place of Professor D. W. Finlay.

The Inclusive Fee: Effect in Aberdeen.

The Scottish Universities have agreed to institute the inclusive fee in Arts and Science, but in view of the great difficulties in fixing an inclusive fee for medicine the Universities Courts, at their conference in July, resolved on deferring the establishment of an inclusive fee in Medicine, or Arts and Medicine, or Science and Medicine. The Treasury has refused to permit this, and Aberdeen, in common with the other Universities, has received a letter expressing satisfaction with the progress made in adjusting matters so far as the present year is concerned; but as regards the additional grant to be provided for the University in the forthcoming financial year and later, it trusts that the system which has been accepted with regard to the faculties of Science and Arts will be extended and brought into operation simultaneously with the other—namely, from the beginning of the academic year 1912–13. The Treasury is therefore making next year's grant conditional on the inclusive fee being adopted for all the faculties. In Aberdeen the introduction of the inclusive fee of 30 guineas in Arts and 40 guineas with honours will entail a heavy loss in fees, as students have been accustomed to take a larger number of classes than the bare minimum for the degree, and have paid, or been paid for by the Carnegie trustees, separately for each class. It is estimated that the loss in Aberdeen will be not less than £1000 a year. In St. Andrews and Glasgow the sum of 30 guineas is about the average of the fees usually paid, and these Universities will not suffer as Aberdeen will. On this point being shown to the Treasury, the reply was that the loss could be made good out of the new grant; but the Universities contend that this grant was needed for quite different purposes, and that it is unfair of the Treasury to give a new grant, and then attach conditions which detract from its value.

Aberdeen Medical Men and Contract Medical Practice.

A circular in the following terms has been sent to all members of the Aberdeen branch of the British Medical Association: "At a meeting of the Aberdeen division, held in the Medico-Chirurgical Society's Hall, 29, King-street, on Tuesday, 14th inst, the question of the family medical fund in connexion with Friendly Society lodges was under consideration. The meeting unanimously resolved that the time was ripe to terminate this form of contract medical practice. The following motion was also carried unanimously: 'That the secretary circularise all practitioners within three miles of the city boundary to give their adherence to the following: First, to decline to act as medical officer to a Family Medical Fund in connexion with a Friendly Society. Second, to give a pledge not to compete for a Friendly Society Lodge against a colleague holding the appointment at present.' It may be stated that, so far as can be ascertained, all the medical men holding Friendly Society appointments within the city were present save five. You are requested to return the fly-leaf, signed." The pledges contained in the fly-leaf are as follows: "1. I hereby pledge myself not to act as medical officer to a Family Medical Fund in connexion with a Friendly Society. 2. I hereby pledge myself not to compete for a Friendly Society Lodge against a colleague at present holding the appointment."

Baldovan Institution, Dundee.

Dr. John Macpherson, His Majesty's Commissioner in Lunacy, recently visited Baldovan Institution for the Treatment, Education, and Training of Imbecile Children. He reports that his visit produced a favourable impression, not only of the management, which is thorough and devoted, but of the growing importance and progress of the institution. There were many evidences that the institution was becoming every year better equipped for the important social work for which it was founded. The children were well dressed and nourished, the sick carefully tended, and the instruction and training of those who could benefit by them were assiduous and regular. He said that the enterprise of the directors, the good medical care of the inmates, and the single-hearted devotion of the staff deserved more substantial support and recognition from Dundee than they at present received.

Consumption and Local Authorities.

At a meeting of the Dundee public health committee, held on Nov. 14th, the question of the extension of King's Cross Hospital was under discussion. It was shown that the proposed extension—namely, the erection of a pavilion for advanced cases of phthisis and a pavilion for measles, each containing 40 beds, the erection of a new home for nurses of 40 bedrooms, and the provision of additional servants' accommodation—would cost about £16,000, with a first cost of furnishing of £1600, and a cost of maintenance and staffing of £3043. Dr. C. Templeman, the medical officer of health, advised the postponing of the whole question of providing for phthisis meantime. He said that he was of opinion that in a very short time the Local Government Board would throw the responsibility of dealing with phthisis entirely upon local authorities, which he thought might mean a more serious burden upon local authorities than any of them imagined. In the course of further discussion it was stated that by leaving out the phthisis pavilion the primary cost would be reduced by £6000 and the cost of maintenance by £1500. This it was agreed to do. The Order for England issued by the Local Government Board on Nov. 16th making notification of pulmonary tuberculosis compulsory and giving certain powers, such as to supply medical assistance, facilities, and such articles as may be necessary, with a view to preventing infection or removing predisposing conditions, and of appointing additional officers, fulfils Dr. Templeman's prediction. A like Order for Scotland may follow at any time.

Nov. 21st.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Medical Profession and the Insurance Bill for Ireland.[1]

THE extraordinarily uncertain and topsy-turvy condition of the National Insurance Bill is well illustrated in the wonderful changes that have taken place in the method of its application to Ireland. At first, when the Bill was introduced, medical benefits applied to that country; then the

[1] On Nov. 22nd we received the following telegram from our local correspondent: "On Nov. 21st the Conjoint Committee of the British Medical Association and the Irish Medical Association passed a resolution in Dublin approving the restoration of medical benefits for Ireland, and on behalf of the profession in Ireland accepting the measure under the same conditions as shall be acceptable in Great Britain."

Chancellor, on Nov. 14th, withdrew them; later, when Mr. Lloyd George and the Irish Members had been made acquainted with the views of the industrial classes who had sent over a deputation to London, the Chancellor said: "If there was a feeling that medical benefit for Ireland should be incorporated the Government would not resist. The question was what bargain could be made with the doctors. It was a question of bargain with the doctors." So far as Ireland is concerned, the following alterations have been made in the Bill:—

1. Separate commissioners with a distinct Irish fund and administration for Ireland.

2. The joint contribution of employer and worker in Ireland will be 5½*d.* instead of 7*d.* in England.

3. The State contribution in Ireland will be 2*d.*, as in England, thus giving in Ireland a larger proportion according to payments. The saving of 1½*d.* is divided as equitably as possible between the employer and the worker.

4. A reduction of 2*d.* per week can be obtained by those who agree to maintain during six weeks' illness their indoor servants and agricultural labourers.

5. Where the wages are under 9*s.* per week there will be no contribution from the worker, who under the Bill as originally introduced would have had to pay 1*d.* a week. This penny is to be paid by the State as an additional contribution.

6. For women the charge will be 1*d.* per week less than for men, in all cases, and there will be the same State contribution.

7. Medical benefits are excluded.

8. The provision that parents must insure their children who are working for them and are not in receipt of wages has been abolished both for town and country.

9. Provision is made for the exemption of home workers when the work is done at the leisure time of the workers and is not their main means of support.

10. Farmers who emigrate to Great Britain as labourers are excluded.

11. The limitation, as originally drafted in the Bill, giving the minimum membership for a society to qualify as an "approved society," has been eliminated.

12. The constitution of Health Committees has been popularised and adapted to Irish conditions.

13. Maternity benefit has been increased, so that sickness benefit may be paid in addition to the 30*s.* mentioned in the original Bill.

The Nationalist Members base their main objection to medical benefit on the feeling that exists in Ireland whilst the present dispensary service exists, although Mr. Birrell said he was sorry medical benefit had been excluded in favour of the retention of the dispensary system. It is right to recollect that in Ireland out of 2724 medical men there are only 810 dispensary officers. The Nationalist Members say the creation of a second service to administer medical benefit would stand in the way of Poor-law reform, while most people feel that the administration of the Insurance Bill by the dispensary system will only intensify the Poor-law methods. Further, in their printed statement the Nationalist Members say the medical benefit, as it exists in England, is only for the insured persons, which would leave in Ireland the wives and children still dependent on the dispensary service, and they add: "Should the fund permit it, medical benefit for the insured and their families can be made an additional benefit," which is entirely contrary to the usual inducement to the medical profession: "True! Your pay for attending the insured man may not be much, but think what you will make by looking after his wife and family."

On Nov. 16th, at a very largely attended meeting of the Ulster Branch of the British Medical Association, held in the Medical Institute, Belfast, Mr. J. G. Cooke, surgeon to the Londonderry Infirmary, being in the chair, a long and interesting discussion took place on the Insurance Bill. Mr. R. J. Johnstone, Dr. J. S. Darling, and Mr. William Burns, who had been members of a deputation that had interviewed the Chancellor of the Exchequer and the Irish Members of Parliament in London, gave an account of what had occurred. It being known that negotiations had been again reopened in reference to the inclusion of medical benefits in Ireland, it was moved by Dr. Darling (Lurgan), and seconded by Dr. E. C. Thompson (surgeon to the Omagh County Infirmary), that the members were willing to act on the same lines in Ireland as their medical brethren in England, a resolution to which effect was passed unanimously.

The urgent recommendation of the Conjoint Committee of the Irish Medical Association and the British Medical Association for the inclusion of medical benefits was considered by the Dublin Division of the British Medical Association at a meeting on Nov. 20th. There was a hot debate on the subject, but ultimately a resolution was carried approving of the inclusion of medical benefits. The voting on the question seemed to show that the dispensary medical officers wish for medical benefits, while other general practitioners are opposed to them. The dispensary officers looked to the medical benefits of the Bill to relieve them of much of their Poor-law work, while if the Bill becomes law without medical benefits being included they fear that a large number of insured persons will seek Poor-law relief, not so much for purposes of treatment as to obtain the necessary certificates of sickness. On the other hand, some general practitioners fear that they are likely to be deprived of much of their private practice and to get very little in return.

At a meeting of the Belfast Division of the British Medical Association, held on Nov. 20th in the Medical Institute, Belfast, the various recommendations of the Council of the British Medical Association were passed with a few modifications, and their delegate, Dr. H. Hanna, was instructed to support them at the London meeting on Nov. 23rd. Among the recommendations were those affirming the necessity of the six well-known points put forward by the medical profession, and another asking that medical benefits should be re-inserted in the Irish part of the Bill.

Dental Hospital of Ireland.

At the annual meeting of the Dental Hospital, held last week, it was stated that the operations during the year numbered 48,370, and that much of the work had been done free. There was still an outstanding debt of £1041 4*s.* 8*d.*, although the income for the year had exceeded the expenditure by £90. There had been 48 students on the roll, of whom 11 had secured diplomas.

Eugenics in Belfast.

At the opening meeting of the Belfast Natural History and Philosophical Society, Major Leonard Darwin gave an address on "The New Science: Eugenics or Race Hygiene." Professor J. A. Lindsay presided, and at the conclusion of the lecture a vote of thanks, proposed by Mr. J. R. Fisher (editor of the *Northern Whig*) and seconded by Professor Greig-Wilson, was accorded to Major Darwin. At a meeting on Nov. 15th it was decided to form in Belfast a branch of the Eugenics Education Society.

The Ulster Medical Society.

The annual dinner of the Ulster Medical Society was held in the Medical Institute, Belfast, on Thursday, Nov. 16th, the President, Dr. H. L. McKisack, occupying the chair. There was a very large attendance The usual loyal toasts were warmly received. Professor W. St. C. Symmers then proposed the health of the guests, to which the new Recorder, his honour Judge J. W. Craig, K.C., and Mr. G. Clark, D.L., replied. The health of the President, proposed by Dr. W. L. Storey, was cordially received, and Dr. McKisack responded. The reunion was a very successful one.

Belfast Guardians and Consumption.

At a meeting of a special committee appointed by the Belfast board of guardians, held recently, to consider the question of sanatorium treatment, after a long discussion it was agreed to recommend—(1) That for the purpose of preserving thorough classification in the Abbey Sanatorium, which it is admitted cannot be completely carried out with the existing buildings, a hospital or pavilion to accommodate from 65 to 70 patients be erected on the lower side of the Administrative House, adjacent to the pavilions for female patients, and that a suitable fence be also erected; (2) that steps be taken immediately for the appointment of an additional visiting medical officer and an additional resident medical officer, Dr. Robert Hall to remain as senior medical officer, to take charge of the administration and to allocate the work of the medical staff.

Typhoid Fever in Omagh Asylum.

At present there are about 66 typhoid fever patients under treatment in the hospitals connected with the Tyrone and Fermanagh Asylum at Omagh, which, with the three patients being nursed in the hospital and the number who have died, make about 80 cases since the commencement of the outbreak. No new cases have arisen within the past few days, and it is likely that the most critical part of the epidemic is over.

Nov. 21st.

THE German Colonial Ministry is sending Dr. O. Glantz, assistant in the Berlin University Ophthalmic Clinic, to Samoa, to study and report upon the infectious eye disease which is prevalent there.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Danger of Drop Bottles.

M. Pron has pointed out to the Therapeutical Society a serious defect, which does not receive sufficient consideration, in the use of drop-bottles, a defect which might have serious consequences. When the bottles are used for watery or alcoholic liquids they give drops much too large, with the result that, for instance, a patient ordered to take 0·70 gramme of an alcoholic tincture actually absorbs, when dropped from a bottle, an entire gramme.

Contagious Diseases.

The French and German Governments have arranged for an immediate exchange of notification between the proper authorities of the frontier jurisdictions of the two countries in the event of the outbreak of contagious diseases affecting either man or beast. The arrangement will come into force on Dec. 11th.

The Right to Publish Reports of Medical Proceedings.

This question of law has been raised at the general assembly of the Association of French Medical Journalists. The association's legal adviser has stated that a journal has no right to publish a clinical lecture, which is presumably his property, without the authority of the lecturer.

A Medical Sculptor.

Dr. Paul Richter, in addition to his acknowledged medical status, is an engraver of marked talent and a sculptor of repute. In this capacity he has added to his title as a member of the Academy of Medicine that of member of the Academy of Fine Arts. He has just completed two medallions designed to commemorate two scientific personages. The first was brought about as the result of an international subscription, and shows on the obverse a bust of Sir Patrick Manson, having on the reverse an allegorical design portraying the labours of the illustrious scientist in tropical diseases. The second, which was engraved for the occasion of the bi-centenary of the Veterinary School of Lyons, commemorates the life-work and discoveries of Professor Arloing, of Lyons. It bears on the obverse the profile of the scientist and on the reverse a tableau of bovine antituberculosis vaccination.

The Evolution of Tuberculosis during Pregnancy.

At a meeting of the Obstetrical Society of France this important question has been taken up and studied afresh. For many years it has rightly occupied the attention of the medical world. It had already been considered at the congress at Rome in 1902, and since then medical men of all countries have been engaged upon it. The occasion for the interruption of pregnancy has especially been worked at up to now; abroad opinion was clearly in favour of intervention, while in France a more conservative view has prevailed. The recent researches of Schmorl on placental tuberculosis have aroused fresh interest in the question. It has been demonstrated that pregnancy may light up a latent tuberculosis and that this aggravation may become manifest only after delivery. It is due to the lessened resistance, by the absence or diminution of the antibodies in the pregnant woman and after confinement. Although placental tuberculosis is hardly admitted as a fact in France, M. Bar and his pupils in their researches have demonstrated the presence of placental tuberculosis on four occasions. In regard to treatment, also, accoucheurs are divided into abstentionists and interventionists. But there is no certain means of distinguishing cases in which medical treatment alone gives satisfactory results and those in which early intervention is necessary; the tuberculin test is interesting, for it seems to be the case that in every woman at the beginning of pregnancy a violent reaction to tuberculin, even if the pulmonary lesions appear to be extending, indicates a relatively good prognosis, while the negative phase, coinciding with even slight lesions, indicates a very serious prognosis. It is difficult to know whether it is better to induce abortion or to resort to surgical operation. If the placental tuberculosis is very marked hysterectomy seems indicated. If the aggravation is due to inhibition of the antibodies abortion appears sufficient.

Disturbances at the Faculty of Medicine.

The reopening of the course of M. Nicolas, professor of anatomy for first and second year students, has been the signal for disorder. It was impossible for M. Nicolas to make himself heard. Appeals written on the blackboard for silence were in vain. About 500 students were gathered in the amphitheatre. After disorderly behaviour for three-quarters of an hour, they began to throw coppers and paper pellets into the well. At 5 o'clock M. Nicolas was compelled to retire. This is the third year in which these disturbances have occurred. It is probable that they will result in the suppression of the course for the entire year.

The Maison du Médecine.

I chronicled at the time of its foundation, two years ago, the happy inspiration that had brought medical men together for the charitable purpose of founding a house of retreat in which, for the smallest possible sum, unfortunate *confrères* could live in honourable comfort. The president of this society, Dr. Courtault, having died a tragic death during a voyage, the council of administration of the House of Rest has elected in his place M. Paul Reyniez, a surgeon to the hospitals, professor *agrégé*, and member of the Academy of Medicine.

Death of Dr. Albert Louis.

Another victim to professional duty, Dr. Albert Louis, surgeon-major to the expeditionary corps in Morocco, succumbed on Oct. 8th in the field hospital at Casablanca from typhoid fever contracted at the bedside of the numerous typhoid patients whom he devotedly tended at the field hospital at Meknes.

Nov. 21st.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

Opening of the New Clinics.

ON Nov. 4th the three new clinics were formally opened by representatives of the Government, the University, and the municipality in the presence of a great number of invited guests and other persons interested in the ceremony. On the conclusion of this part of the proceedings the visitors had an opportunity of examining the various details of the new buildings, in the course of which inspection many interesting particulars were brought to their notice.

For instance, in Professor von Noorden's clinic, which has 100 beds, special attention will be paid to the study of disorders of metabolism, and for this purpose a separate kitchen has been provided, in which the kind of food and the proper quantity of it necessary for the individual treatment of such patients will be prepared. This kitchen is at present the only one of its kind in a continental general hospital. Not only students, but also practitioners and nurses, will thereby be enabled to make themselves acquainted with the important dietetic management of patients suffering from diabetes, gout, obesity, and other abnormalities of nutrition, as well as with the scientific principles on which the treatment is founded. Another remarkable innovation in the clinic is the department for physical therapeutics, containing appliances for gymnastics, medico-mechanical exercises, electro-therapeutics, hydrotherapeutics, electrical baths, and various other baths in which sand, mud, and brine are made use of. Chemistry naturally plays an important part in this clinic, and a splendidly equipped large laboratory is provided, as well as a fine library, the nucleus of which consists of the library of the celebrated Professor Nothnagel, who bequeathed it to his clinic. The latest improvements have been introduced in the building of the institute. The lecture room has excellent acoustic properties, ample means of exit for the students, and convenient arrangements both for darkening the hall and for demonstrations with optical apparatus; on the roof there is a garden, part of which is occupied by hutches for the animals used in the experimental laboratories, one such laboratory being allotted to each of the new clinics. The staff of the clinic, to which a large out-patient department for nervous diseases is attached, consists of 2 professors (Professor von Noorden and Professor von Frankl-Hochwart), 8 assistants, 12 house physicians, and 37 nurses.

A noteworthy improvement has been introduced in the Clinic for Children, at the head of which is Professor

von Pirquet. The idea has been to prevent as far as possible a transmission of infectious diseases in the out-patient department, and for this purpose the following system has been adopted. At the entrance of the clinic an experienced matron sees the child, and if there are manifestations of infectious disease the patient is sent at once, by a special exit, to the examining medical officer, while if there is any suspicion of such disease the patient is sent to the "observation station." This consists of an examination hall, divided up into (1) several small compartments, each of which is disinfected after each patient, and (2) the observation cells. When the child has been seen by a medical man in the examination compartment, if the case be infectious the child is sent through a special exit into the pavilion for scarlet fever or diphtheria, or whatever the disease may be. If the diagnosis is uncertain the child becomes an inmate of the observation cells. There are 12 of these, six on each side of a long corridor—the so-called "clean corridor"—whilst on the outer side of each series of cells there is another corridor, the "infected corridor," through which the cells may be entered. The cells are constructed mainly of glass and iron; a cell in the centre is elevated, and is used by the nurse, who in this way can supervise all the cells. By this system the patients are separated from each other, but they can be seen by friends and students from the clean corridor without risk of propagation of disease, and if found infectious or non-infectious are treated accordingly, without themselves running any risk, as would be the case if they should be sent into an infectious ward with an uncertain diagnosis. This clinic has 66 beds, besides 22 beds each in the diphtheria and the scarlet fever pavilion, and one of the chief objects of the clinic will be a thorough instruction of nurses and medical practitioners in the management of infants' diet. There are also several cots—*couveuses*—for infants born prematurely, and the greatest care has been taken to secure efficiency in every detail.

The Throat Clinic, under Professor Chiari, is likewise a modern building accommodating 50 in-patients in spacious lofty wards. Special attention has been paid to the fitting up of the out-patient department in this clinic. In the darkened hall 20 patients can be examined by the medical men and students at a time, and the sterilisation of instruments, mirrors, speculums, and probes is effected by boiling water, into which wire-gauze cups filled with the instruments are dipped. Bronchoscopic work is possible on a large scale, as well as rhinological and laryngological operations, both minor and major, such work being performed in special operating theatres. There are also a fine library and excellent laboratory facilities. The large number of patients will make the work most instructive, and there is no doubt that this clinic is at present the largest and finest of its kind.

As a visitor justly remarked, the hospital patients, mostly in poor circumstances, are now better cared for than patients of the wealthier classes; for the best medical advice and the best therapeutical appliances of every kind, in excellent wards and in the most favourable hygienic conditions, can be had free of charge by the poor in these new clinics. All this, however, has to be paid for, and it is not surprising that each patient costs the hospital at least 6*s.* per day, whilst an operation with an anæsthetic costs anything between 15*s.* and 40*s.* net expenditure. The expenses of carrying on the institutes are in fact so high that special collections are now being made for their benefit.

Nov. 20th.

UNITED STATES OF AMERICA.

(FROM OUR OWN CORRESPONDENTS.)

New York City Death-rate.

WITH the month ended Oct. 31st the death-rate was the lowest for any month in the history of New York city. According to the Health Commissioner, Dr. Lederle, the decrease took place in practically all diseases, the greatest decrease, however, occurring in diseases of children, in which the death-rate fell 50 per cent. The mortality-rates from infectious diseases have also decreased for the entire city, and for the first time for years the death-rate from heart disease and Bright's disease has been considerably below the average.

Higher Entrance Requirements for Medicine at Cornell University.

Cornell University Medical College opened this year with a smaller enrolment of students than for years past. This is attributed to the new requirement of a bachelor's degree in science or arts, with somewhat longer than one year's work in physics, chemistry, and biology.

The New York County Medical Society.

This society held its 106th annual meeting on Oct. 24th, and adopted a new constitution to replace that drawn up in 1806, when it had 371 members; it has now 2400 members, and feels the need of adapting its rules to the exigencies of modern practice. A lively debate was held over the proposal to move the historic New York Hospital to Sixty-fourth-street and Tenth-avenue, a district already fairly well served, while the northern part of the city is almost destitute of ambulance service. The new officers are: President, Dr. Charles G. Kerley; Vice-Presidents, Dr. Brooks H. Wells and Dr. T. Passmore Berens; secretary, Dr. John Vandoren Young; treasurer, Dr. Charles H. Richardson.

Food Law Violations.

A New York grocer made his fourth appearance before a judge the other day, accused this time of selling ice-cream which was sour, 26 per cent. below the required fat content, and liberally adulterated with gelatin. He blandly explained to the judge that he was ready as usual to pay a fine, and was considerably taken aback when he found himself sentenced to 30 days' imprisonment. Fines ranging from £2 to £20 were then imposed on first offenders for selling decayed fish, skimmed and watered milk, rancid butter, and eggs of dubious age. Imprisonment seems to be the only efficient remedy for food law violations; the recently imported immigrant looks upon fines as a sort of licence fee and pays them cheerfully.

Motor-car Accidents in Massachusetts.

The Massachusetts Highway Commission has reported that there were 1357 motor-car accidents in the State during ten months of the present year, in which 1100 persons were injured and nearly 100 were killed. In 1910 there were 77 deaths and 963 injured caused by motor vehicles in the same State.

Eugenics in Michigan.

The State Board of Health of Michigan has decided to employ an expert in eugenics to investigate the condition and extent of feeble-mindedness in Michigan.

Anti-typhoid Vaccination in the United States.

Throughout the United States the use of anti-typhoid vaccination is rapidly increasing. It is now compulsory in the army. Several States also propose to employ this preventive measure.

Investigation of Pellagra.

The Department of Tropical Medicine of the New York Post-Graduate Medical School is making plans for the investigation of pellagra in the Southern States during the coming spring.

Do American Lifts Shorten Life?

Professor Franz Bergmann, of Berlin, has informed a newspaper reporter of Los Angeles, California, that the lifts in American 20-storey buildings shorten life by the successive shocks they administer to passengers in their abrupt method of starting on, which frequently causes vertigo in a foreigner. Elevator boys, however, do not seem to suffer, and men accustomed to the speedy lifts, which are an absolute necessity, never complain. Professor Bergmann also asserts that the tight shoes of American women are causing the disappearance of the little toe. We are not taking our learned visitor very seriously.

Diphtheria in Indianapolis.

Diphtheria is reported to be alarmingly prevalent in Indianapolis. Proprietors of places of amusement, especially of moving picture shows, have been advised not to admit children, and parents have been requested by the health authorities to keep at home all children under 16 years of age.

Death of Dr. Henry Clay Dalton.

Dr. Henry Clay Dalton died recently from acute appendicitis at St. Louis, where he had practised since 1885. During

his tenure of office as superintendent and surgeon in charge of the St. Louis City Hospital he gained a high reputation as an abdominal surgeon. He is said to have been the first surgeon to operate successfully on stab wound of the liver.

Nov. 11th.

NOTES FROM INDIA.

(FROM OUR OWN CORRESPONDENTS.)

Accelerated Promotion in the Indian Medical Service.

AT the present moment, when it is generally accepted that the War Office has decided to abandon the system of acceleration of promotion to the rank of major, which was introduced with the first session of the Royal Army Medical Corps in 1903, it is interesting to note that the Indian Government has notified that rules for accelerated promotion will be given retrospective effect and made applicable to (1) existing majors of the Indian Medical Service who have not completed 16 years' service and have not been able to obtain study leave to qualify for accelerated promotion; and (2) majors of the Indian Medical Service who entered the service after Jan. 30th, 1893, and had already taken study leave and qualified for accelerated promotion in the rank of major before completing 16 years' service.

Lahore Medical College.

It is understood that Major J. Stephenson, I.M.S., is likely to be employed as Professor of Biology in the Government College, Lahore, for a further period of five years from Oct. 1st.

The Dufferin Fund.

Not the least important of the reforms being introduced by Surgeon-General C. P. Lukis, Director-General of the Indian Medical Service, is a proposal to establish a graded service of medical women for the Dufferin Fund and to provide a provident fund for medical women serving under the Fund. The reforms are estimated to cost between three and four lakhs of rupees per annum, and as the funds of the central committee are already fully allotted, the fate of the proposals depends upon the attitude of the Secretary of State and the Government of India. At a meeting of the central committee, under the presidency of Lady Hardinge, on Oct. 7th, it was resolved to lay the scheme forthwith before the Secretary of State through the Government of India. The scheme, in addition to its financial aspects, introduces new disciplinary clauses which are intended to give medical women, of proved fitness, more freedom in their own hospitals in their relations with the local civil surgeons.

The Bedford Scientific Research Scholarships.

The following *communiqué* has just been issued by the private secretary to the Viceroy: "Colonel C. H. Bedford, M.D., I.M.S., lately chemical examiner and bacteriologist, Burma, has munificently decided to bequeath from the date of the death of himself or his wife, whoever may be the survivor, a sum of several thousand pounds sufficient to afford ample endowment for two or more scholarships, and to provide necessary working funds in connexion therewith, for the prosecution of scientific and technical research in connexion with the development of Indian industries."

Ambulance Work in India.

The annual report of the Indian branch of the St. John Ambulance Association has just been published. It shows the amazing amount of progress which can be achieved in a comparatively short space of time, and reflects especial credit on the honorary secretary who has devoted his leisure for the past three years to the movement. There are now no less than 54 working centres, and a short report from each centre is published showing that all are in working condition. The roll of life members has been materially added to and the financial condition of the branch is sound. A detailed account of the work done under the following headings is given: Military Forces, Volunteers, Railways, Police and Jails, Schools and Colleges, Mercantile Marine, Indian Mines, Imperial Service Troops, and Frontier Militia, whilst a brief account is also given of the vernacular translations of the Association's manuals, the Indian stores depôt, and the annual competitions for some handsome trophies possessed by the branch. One of the most interesting features of the report is the account of ambulance work in feudatory India. Centres have been formed in ten independent states and the following ruling princes are shown as actively interested in the movement—viz., the Maharaja of Mysore, the Maharaja Gaekwar of Baroda, the Maharaja of Jaipur, the Maharaja Scindia of Gwalior, the Maharaja of Indore, the Begum of Bhopal, and the Rajahs of Faridkot and Nagod. The work appears after many years' effort to have at last taken firm root in India, and the Government of India should feel especially grateful to the medical officers of both services who are devoting so much of their scanty leisure to promote this great humanitarian propaganda amongst the natives.

Sanitation in India.

There is growing up amongst educated Indians a steady demand for better sanitary conditions, and everywhere one finds them demanding that Government should give the subject more attention. In the legislative assemblies many speeches have been made on the subject, and in his presidential address delivered at the meeting on Sept. 26th of the Third Punjab Hindu Conference at Amritsar, Rai Bahadur Lal Chand made some very pertinent observations regarding the comparative urgency of the claims on public funds of sanitation and free primary education. The speaker maintained that sanitation was not of less importance than free education. He went on to say: "People must live healthy, be strong and fit in physique before they can take advantage of elementary education. What is the use of literate boys and girls whose health is ruined by malaria and phthisis and various other diseases due to insanitary conditions? In my opinion the first question is to live, and live long and healthy lives. Where is the use of insisting on taxation for free education when the majority of children die before they are a year old?" The position taken by the Rai Bahadur is that if additional taxation were to be levied the proceeds should be spent in promoting sanitation rather than in organising a scheme for free and compulsory education. This is a view with which most sensible persons find themselves in agreement. In this relation we find that most of the provincial governments are showing activity on the subject, the most recent move being that of the Madras Government, which has just passed orders on a scheme for investigating the causes of malaria. At Ennore, a village on the sea coast a few miles away from Madras, in which a number of European residents possess bungalows and which is a popular week-end resort, measures are also to be taken for the discovery and destruction of mosquito-breeding places. The Government say that the correspondence that they have had with various medical authorities lays particular stress upon the danger to the city of Madras which arises from the conditions now prevailing at Ennore, and emphasises the need for carrying out preventive work in a thoroughly efficient manner and under the supervision of an officer possessed of special qualifications and superior status. His Excellency the Governor in Council is in general accord with this view of the position and agrees with the officers consulted as to the necessity for initiating a definite campaign of preventive work without further loss of time. The scheme approved falls under two main heads—viz.: (1) a detailed investigation of the cause of the prevalence of malaria in Ennore and the vicinity, and (2) the location and destruction of breeding places of anopheline mosquitoes in that neighbourhood. Major T. S. Ross, I.M.S., is placed in charge of the work.

Oct. 24th.

DONATIONS AND BEQUESTS.—The Governors of Westminster Hospital have applied the sum of £2000 out of the amount paid for seats to view the Coronation procession to form an endowment in perpetuity of two beds, to be named respectively "King George's Bed" and "Queen Mary's Bed," in commemoration of their Majesties' Coronation on June 22nd, 1911.—The late Miss Bell, of South Marston, Wilts, has bequeathed £1000 to the funds of the Victoria Hospital, Swindon.—Mr. Harry Speakman Webb, M.R.C.S. Eng., formerly of Welwyn, Herts, who died at Winchester on July 2nd in his 84th year, has bequeathed a legacy of £500 to the Essex and Hertfordshire Benevolent Medical Society.—The Royal Dental Hospital, Leicester-square, has received a donation of £100 and a new yearly subscription of £50 from Mr. James Buchanan, a donation of £52 10*s.* from N. M. D., and £10 10*s.* each from the Skinners' Company and Messrs. Drummond.

Medical News.

UNIVERSITY OF LONDON.—At examinations held in October the following candidates were successful:—

THIRD (M.B., B.S.) EXAMINATION FOR MEDICAL DEGREES.

Honours.—*George Gushue-Taylor, London Hospital; *John Cecil Jefferson, Victoria University of Manchester; †Oswald Robert Kelly, Westminster Hospital; *†‡Henry Linnington Martyn (University medal), King's College Hospital; *Sidney Bertram Radley, Victoria University of Manchester; *Edward Gustave Schlesinger, B.Sc., Guy's Hospital; and *Theodore Henry Whittington, King's College Hospital.

* Distinguished in Medicine. † Distinguished in Forensic Medicine. ‡ Distinguished in Surgery.

Pass.—Gilbert Alan Blake, Guy's Hospital; Gertrude Brooks, London (Royal Free Hospital) School of Medicine for Women; Monamy Aston Cornwall Buckell, University College Hospital; Ronald Herbert Candy, London Hospital; Alfred Bernard Clark, University of Sheffield and University College Hospital; Frank Cook, B.Sc., Guy's Hospital; Thomas Peters Edwards, St. Bartholomew's Hospital; Ralph Franklin Eminson, Charing Cross Hospital; Cyril George Galpin, St. Mary's Hospital; Geoffrey Hadfield, St. Bartholomew's Hospital; Herbert Leslie Hopkins, Guy's Hospital; Arthur Webb Jones, St. Thomas's Hospital; David William Jones, London Hospital; Evan Hugh Jones, St. Thomas's Hospital; Thomas Lewis Jones, Guy's Hospital; Ernest Charles Lindsay, London Hospital; George William Lloyd, St. Bartholomew's Hospital; Joseph Howell Lloyd, London Hospital; Mary Francis Lucas, London (Royal Free Hospital) School of Medicine for Women; John Tiley Montgomery McDougall, Guy's Hospital; Melville Douglas Mackenzie, St. Bartholomew's Hospital; Geoffrey Marshall, Guy's Hospital; James Menzies, St. Mary's Hospital; Douglas Ashley Mitchell, Guy's Hospital; Clement Treves Neve, St. Bartholomew's Hospital; Ambrose Wilfred Owen, St. Mary's Hospital and University College, Cardiff; Alfred Alexander Webster Petrie, University of Edinburgh; Reginald Edward Porter, London Hospital; Walter Woodall Pratt, University of Bristol; Noel Ravenchil Rawson, London Hospital; Maude Margaret Richards, London (Royal Free Hospital) School of Medicine for Women; Charles Frank Schuler, St. Thomas's Hospital; David Scurlock, St. Mary's Hospital; Edward Bertram Smith, St. Bartholomew's Hospital; Albert Joseph Tonkinson, London Hospital; Edith Eleanor Tucker, London (Royal Free Hospital) School of Medicine for Women; George Edgar Septimus Ward, Middlesex Hospital; Harvey Henry Vincent Welch, St. Thomas's Hospital; James Cowan Woods, London Hospital; Roger Michael Wright, University of Bristol; and James Montagu Wyatt, St. Thomas's Hospital.

The following candidates have passed in one of the two groups of subjects:—

Group I.—Gilbert Charles Chubb, D.Sc., University College Hospital; Irene Nancy Clough, London (Royal Free Hospital) School of Medicine for Women; Vincent Glendining, Guy's Hospital; Thomas Herbert Holroyd, University of Birmingham; Edward Lewis Hunt, St. George's Hospital; Charles Dones Killpack, Guy's Hospital; Harold Arundel Moody, King's College Hospital; Henry Brice Parker, London Hospital; Bernard Rayne Parmiter, Guy's Hospital; Mary Minnie Patterson, London (Royal Free Hospital) School of Medicine for Women; and Neville Alexander Dyce Sharp, Guy's Hospital.

Group II.—John Wroth Adams, St. Bartholomew's Hospital; Melville Mortimer Adams, Guy's Hospital; Edwin Augustus Attenborough, London Hospital; Joseph Henry Campain, Guy's Hospital; William Chalmers Dale, St. Bartholomew's Hospital; John Lloyd Davies, University College Hospital; John Beatson Dunning, Guy's Hospital; Macormack Charles Farrell Easmon, St. Mary's Hospital; Archibald Ferguson, St. Bartholomew's Hospital; James Maurice Foord, University of Leeds; Norman Frankish Graham, London Hospital; Arthur Sydney Hahn, University of Sheffield; Guy Fleetwood Haycraft, Guy's Hospital; Robert Hamer Hodges, King's College; William Henry Kauntze, Victoria University of Manchester; Andrew Bonar Lindsay, London Hospital; Martin Wentworth Littlewood, St. Thomas's Hospital; Robin Pearse, St. Bartholomew's Hospital; Cecil Joseph Herbert Pearson and Emmanuel Prinski Scott, London Hospital; Reginald Gershom Sparkes and Arthur Hitchings Thomas, St. Mary's Hospital; and Francis Silvanus Williams, University College, Cardiff, and St. Bartholomew's Hospital.

B.S. EXAMINATION (*for Students who Graduated in Medicine in or before May, 1904*).

James Bruce-Bays, M.D., St. Mary's Hospital; and Lewis Cook, Westminster Hospital.

N.B.—This list, published for the convenience of candidates, is issued subject to its approval by the Senate.

FOREIGN UNIVERSITY INTELLIGENCE.—*Berlin:* Dr. Hathey, Oberarzt of the University Ophthalmic Clinic, has been appointed to act as Professor of Ophthalmology during the vacancy caused by Professor v. Michel's death; Dr. Albrecht, late of Tübingen, Assistant to Professor Killian, has been recognised as *privat-docent* of Otology and Laryngology.—*Clermont:* Dr. Perrin has been appointed to the chair of Natural History in succession to the late Dr. Girod.—*Marburg:* Dr. Hohmeier, of Greifswald, has been appointed Oberarzt of the Surgical Clinic of the University; Dr. Wilhelm Grüter has been recognised as *privat-docent* of Ophthalmology; Dr. Ludwig Kirchheim as *privat-docent* of Medicine.

MIDLAND OPHTHALMOLOGICAL SOCIETY.—On Nov. 14th Mr. D. C. Lloyd Owen presided at a dinner held in Birmingham for the purpose of founding a Midland Ophthalmological Society. About 20 ophthalmic surgeons gathered from Birmingham and other Midland towns and unanimously decided to form the society. Mr. Lloyd Owen was elected president, Mr. H. Eales treasurer, and Mr. J. Jameson Evans and Dr. T. Harrison Butler secretaries. It was decided to confine the membership to ophthalmic surgeons and to hold bi-monthly meetings throughout the year. Members have been enrolled from Birmingham, Leicester, Nottingham, Gloucester, Cheltenham, Walsall, Newcastle, Leamington, and other towns in the Midland area.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Hans Ruge, *privat-docent* of medicine, with the titular rank of professor in the University of Berlin, aged 54. His first post was that of assistant in the Pathological Institute, Heidelberg, under Professor Arnold, and he then migrated to Berlin as assistant in the Second Medical Clinic of the Charité under Professor Gerhardt. He went during the summer to Kudowa, where he was official physician to the baths. For many years he was secretary to the Balneological Society. His contributions to medical literature on pathological matters were numerous. For some considerable period before his death he had been in bad health.—Dr. Hans Steinert, extraordinary professor of medicine in the University of Leipsic, aged 36. He had very recently returned from Davos, where he had been hoping—unsuccessfully as it proved—to regain his health. His published papers dealt principally with subjects connected with diseases of the nervous system.—Dr. Hermann Gareis, assistant in the bacteriological laboratory of the municipality of Munich, from typhus fever contracted in the course of his laboratory work. His age was only 36.—Dr. Philipp Stoehr, professor of anatomy in the University of Würzburg, aged 62. He had been a student under Kölliker and afterwards anatomical assistant in Greifswald under Budge and in Breslau under Haase, returning to Würzburg in 1876 as assistant to his old professor, whom he succeeded in 1897, after having filled the anatomical chair at Zürich for a time. His publications included a well-known text-book of histology, which has been translated into several languages.

NATIONAL DENTAL HOSPITAL.—The annual dinner of the past and present students of the National Dental Hospital and College, Great Portland-street, London, was held on Nov. 17th, in the Empire Rooms of the Trocadéro Restaurant, Sir William Ramsay, K.C.B., occupying the chair. After the usual loyal toasts, the chairman proposed the toast of "The National Dental Hospital and College." He reminded his audience that dentistry was an old profession. Papyrus writings had shown that the use of gold for stopping teeth had been in vogue in ancient times, and the stoppings buried with the patient. Dentistry was clearly a branch of surgery, and therefore had to keep pace with science. He pointed out the importance of good training before practice, and hoped that something effective would be done to protect the dental surgeon from the quack. Mr. Sidney Spokes, the Dean of the school, replied to the toast, and he was enthusiastically received. He reviewed the satisfactory progress that had been made at the hospital during the past year. Reorganisation had taken place all round, and he was glad to be able to report that the appeal for funds had met with a generous response, but they were still open to receive further donations. The school also had shown satisfactory progress. The returns at the examinations were very gratifying to both teacher and student. He emphasised the importance of educating the public to realise that the capable man is the right man. It was deplorable that a man could call himself a dental surgeon on a brass plate and so imply that he was a properly qualified man when he held no qualification at all. Dr. H. L. Eason proposed the toast of "The Past and Present Students," and referred to the good feeling which existed between the dental schools of London and to the evils of unqualified practice. The dental profession, he thought, were hardly treated by the Government. The toast of "The Visitors" was proposed by Mr. Kenneth Goadby (Vice-Dean), to which Mr. Rickman J. Godlee, President of the Royal

College of Surgeons, responded. He remarked upon the importance of an aseptic mouth, and mentioned that an abdominal operation was more satisfactory in the absence of oro-sepsis. During the evening prizes were awarded to the successful students of the session 1910–11, and a musical programme was provided.

A BRISTOL CENTENARIAN.—Mary Emblem died recently in the Bristol Workhouse at the age of 101 years. She had resided in the institution for the past 11 years.

Dr. Gustav Wagner has been appointed Medical Adviser to the Prussian Minister of Public Works in place of the late Dr. Schwechten, general medical officer of railways.

THE annual festival dinner of the West Ham and Eastern General Hospital will be held at the Hamilton Hall, Liverpool-street Hotel, on Friday, Dec. 8th, at 7.30 P.M., when the chair will be taken by the Right Hon. Sir Edgar Speyer.

PRESENTATION TO A MEDICAL PRACTITIONER.—Mr. Norman Porritt, M.R.C.S. Eng., L.R.C.P. Lond., who has retired after 31 years' practice in Huddersfield, has been presented by his patients with an illuminated address, articles of furniture, a type-writer and desk, and many individual gifts. Mrs. Porritt has received a gold watch and bracelet, and Miss Porritt a watch bracelet.

GLASGOW UNIVERSITY CLUB, LONDON.—This club will dine at the Trocadero Restaurant, Piccadilly-circus, W., on Friday, Dec. 1st, at 7.30 P.M. precisely. The chair will be taken by Principal J. Yule Mackay, of University College, Dundee. Members who intend to be present or to bring guests should give early notice to the honorary secretaries, Mr. W. Craig Henderson and Dr. David S. Roxburgh, at 30, Seymour-street, W.

UNIVERSITY OF OXFORD AND PHARMACOLOGY.—The trustees of the Oxford University Endowment Fund have offered the sum of £1100 for the provision and equipment of a department of pharmacology in the University Museum; the delegates of the Common University Fund will shortly proceed to the election of a University Reader in that subject. Information as to the conditions attaching to the readership may be obtained from the Registrar of the University.—The following have been appointed to examinerships:—Dr. David Hepburn (human anatomy), Dr. W. H. Thompson (physiology), Professor Georges Dreyer (pathology), Mr. F. E. Fremantle (forensic medicine and hygiene), Dr. H. D. Rolleston (medicine), Mr. Charters J. Symonds (surgery), and Dr. F. W. N. Haultain (obstetrics).

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

The National Insurance Bill: New Clauses.

ABOUT 20 new clauses were added to the National Insurance Bill on Thursday, Nov. 16th, at the instance of the Chancellor of the Exchequer, and most of them falling under the closure were not even discussed. A separate set of Insurance Commissioners and also a separate Insurance Fund have been given to Wales. One of the new clauses gives to the Insurance Commissioners power to make special orders specifying classes of employment in which a custom prevails to give full remuneration to employees during periods of disease or disablement. In these cases employers who are ready to give six weeks' remuneration may obtain a reduction of a penny per week where the employed contributor is a man, and a halfpenny per week where a woman. The employed contributor obtains a reduction of a penny. It is assumed that hospital nurses may come within the operation of this clause.

The new clause in respect to Local Medical Committees is as follows:—Where a Local Medical Committee has been formed for any county or county borough, and the Insurance Commissioners are satisfied that such committee is representative of the duly qualified medical practitioners resident in the county or county borough, they shall recognise such committee, and where a Local Medical Committee has been so recognised it shall, subject to regulations made by the Insurance Commissioners, be consulted by the Local Health Committee on all general questions affecting the administration of medical benefit, including the arrangements made with medical practitioners giving attendance and treatment to insured persons, and shall perform such other duties, and shall exercise such powers as may be determined by the Insurance Commissioners.

It is anticipated by Ministers that the National Insurance Bill will probably come into operation in July. Mr. LLOYD GEORGE will make an announcement on the matter during the proceedings on the report stage of the Bill.

Committee Concluded.

The Committee stage of the National Insurance Bill was concluded in the House of Commons on Tuesday, Nov. 21st.

HOUSE OF COMMONS.

WEDNESDAY, NOV. 15TH.

Health at Osborne College.

Lord CHARLES BERESFORD asked the Secretary to the Admiralty whether there were cases of scurvy at Osborne College last July; whether a London specialist was sent for to attend the cadets suffering from this affection; whether mysterious complaints of the eyes, known as pink-eye, were constantly occurring; and whether he had official reports showing that there was more illness at Osborne College than at any other public school in England.—Mr. MACNAMARA replied: There were no cases of scurvy at Osborne last July. No London specialist was sent down on this account. There have been no mysterious complaints of the eyes, but, as frequently happens in all schools, mild cases of conjunctivitis have cropped up from time to time. No such official reports as are referred to have been received, and it is not considered that any comparison can usefully be made between the conditions at Osborne, where there are some 400 boys, all of whom are from 12 years and 8 months to 15 years old, and over 200 of whom change every year, and the average public school where the ages vary considerably more and the boys remain for a much longer period.

Mr. HUNT: Is it not well known that Osborne College is unhealthy for boys?—Mr. MACNAMARA: No, Sir.

Sanitary Condition of Harrogate.

Mr. LANE-FOX asked the Chancellor of the Exchequer what was the date of the report on the sanitary administration of Harrogate; whether that report was based on an inspection made fully a year previous to its issue; whether the report referred to a small proportion of the houses in the town; and whether later sanitary reports by the medical officer of health for the borough recorded the remedying of the defects mentioned.—Mr. MCKINNON WOOD (on behalf of Mr. LLOYD GEORGE) replied: The report in question, as my right honourable friend was careful to state on Thursday, is dated Nov. 16th, 1908. It is admitted that the state of affairs to which he called attention existed at the date of its publication in February, 1909. The later reports of the medical officer of health record the remedying of defects, but they also indicate that they existed to a serious extent. I am aware that action has been taken by the council since the report of the Local Government Board inspector, but inquiries that my right honourable friend has since instituted have convinced him that there are still houses in Harrogate unfit for human habitation.

Mr. LANE-FOX: Will the right honourable gentleman point out to the Chancellor of the Exchequer the serious injury such partial statements may do to a growing health resort?—Mr. MCKINNON WOOD: I cannot admit that the statements are partial. I think a good deal of the ratepayers' money is often spent on the more showy portions.

Mr. LANE-FOX: The Chancellor of the Exchequer quoted one report and not the others. Does the right honourable gentleman consider that is a fair way of dealing with the matter?

No reply was given.

Inflammable Flannelette.

Dr. C. ADDISON asked the President of the Board of Trade whether, in view of the Report of the Departmental Committee (Coroners) published in 1910, and the evidence afforded by coroners' inquests held on infants and children that great dangers arise from the use of inflammable kinds of flannelette, the Government was prepared to take steps to prevent the sale of flannelette which did not conform to a standard test, to be prescribed by Government, as to non-inflammability.—Mr. MCKENNA (for Mr. S. BUXTON) said in reply: No steps to prevent or regulate the sale of inflammable flannelette could be taken without legislation for the purpose, and I cannot hold out any immediate hope of the Government undertaking legislation on this subject. The committee considered the question of establishing a standard test, but regarded the suggestion as impracticable.

The Use of Lead Paints.

Mr. GILL asked the Secretary of State for the Home Department whether he had received from the central office of the International Association for Labour Legislation at Basle a petition drawing his attention to a resolution of the association recommending that the use of lead paints and colours should be prohibited for interior work, and that all receptacles containing lead should be required to be clearly marked to that effect, and, if so, what reply had been sent as to what steps he proposed to take.—Mr. MCKENNA answered: I have received through the British section of the association a communication calling my attention to the resolution referred to in the question. The question of the use of lead in paints is now being investigated by two departmental committees, and I do not propose to take any action in the matter pending the receipt of their reports. In any case, further legislation would be necessary before effect could be given to the recommendation of the association that the use of lead should be prohibited for interior work. I have informed the British Section that the recommendations have been noted.

Lead Glaze in Pottery.

Mr. GILL also asked the right honourable gentleman whether he had received from the central office of the International Association for Labour Legislation at Basle a petition drawing his attention to a resolution of the association recommending that the use of lead glaze should be prohibited in the manufacture of china and earthenware fired at a high temperature; that in the manufacture of earthenware fired at a low temperature a list of articles should be drawn up for which no lead should be allowed; that occupiers should be assisted by the Government in making experiments into the use of lead glazes; and, if so, what reply had been sent as to what steps he proposed to

take.—Mr. MCKENNA replied: I have received through the British section of the association a communication calling my attention to the resolution referred to in the question. The question of the use of lead in the manufacture of pottery has recently been the subject of an exhaustive investigation in this country by a departmental committee who did not see their way to recommend restrictions on the use of lead as suggested by the association, but submitted instead proposals for more stringent regulation of the conditions of employment which the Home Office is taking steps to bring into effect. The conclusions of the committee must, I think, in the present state of knowledge on this subject, be accepted as final.

THURSDAY, NOV. 16TH.

Lead-poisoning at Portsmouth.

In reply to Mr. FALLE, Mr. MACNAMARA said that the number of cases of lead-poisoning which had occurred this year in the Gun Wharf shop, Portsmouth, were five, in the dockyard generally five. The numbers of deaths from lead-poisoning were: men employed in the Gun Wharf shop, none; men employed in the dockyard generally, two.

Patent Medicines.

Mr. LYNCH asked the Secretary of State for the Home Department whether he was aware that amongst the patent medicines sold in this country there were some of which the advertisements were merely thin disguises for the suggestion of illegal practices, and that the consequences in a number of cases did not rest with the immediate result sought but produced severe general poisoning, such as lead poisoning; and whether steps would be taken to put a stop to or mitigate these evils.—Mr. MCKENNA replied: I am aware that some of the advertisements suggest illegal practices, but they are in such veiled language, and in many cases the drugs are in fact so innocuous, that it would be impossible to prosecute successfully. This will be a matter for the consideration of the proposed Select Committee.

Mr. LYNCH also asked the right honourable gentleman whether he was in a position to state the general character of the Select Committee he had promised to appoint next session to consider the question of patent medicines, particularly in regard to the terms of reference and the adequate representation thereon of medical opinion.—Mr. MCKENNA answered: I am not in a position yet to make any announcement.

Mr. LYNCH further asked the right honourable gentlemen whether, in view of the fact that many of the patent medicines sold in this country consisted mainly of cheap and innocuous drugs sold at 50 times the real value, he would issue as a Parliamentary Paper a statement of the analyses of the more prominent of such patent medicines, or would take steps to give wider publicity in the general interest to the results of analyses of popular patent medicines obtained by the experts employed by the *British Medical Journal*.—Mr. MCKENNA said in reply: The analyses published by the *British Medical Journal* are no doubt most useful, but I think that the honourable Member will understand that I cannot without independent investigation adopt and publish them officially. The question is one which I must leave to the Select Committee.

Mr. C. BATHURST: Is anything being done to accelerate the appointment of this committee?—Mr. MCKENNA: I have stated already that I propose to appoint the committee next session. It will be appointed early.

Tuberculosis in the Army.

The Marquis of TULLIBARDINE asked the Under Secretary of State for War what percentage the number of men discharged for tuberculosis during the last three years from the regular army at home and abroad bore to the total number of men serving in the army during these three years, taking each year separately—Colonel SEELY replied: The figures are as follows:—

	Average annual strength.	Number of cases discharged.	Percentage.
1908	223,744	306	0·14
1909	231,316	339	0·15
1910	230,500	285	0·12

MONDAY, NOV. 20TH.

Royal Naval Medical Service.

Mr. BENNETT-GOLDNEY asked the Secretary to the Admiralty whether the Admiralty had received any report from the consultative committee of the Royal Naval Medical Service, and when did they receive it; would he give instructions that this report in its original form should be laid upon the table of the House; had the Admiralty been advised by the consultative committee that the only practical means of obtaining the additional number of medical officers of the high standard necessitated by modern requirements to make up the shortage in the Royal Naval Medical Service is by offering a substantial increase of pay; was this opinion endorsed by the Admiralty; had the Admiralty received any communication from the Army Council upon the subject to the effect that the Army Council would view any decision of the Admiralty to make the career in the Royal Naval Medical Service more attractive by offering a higher scale of pay as antagonistic to the desired flow of candidates to the Royal Army Medical Corps; and, if so, did the Admiralty intend to allow the Royal Naval Medical Service to continue to suffer both in efficiency and numbers in order to enable the Army Council to keep down the pay of members of the Royal Army Medical Corps to its present rate.—Mr. MACNAMARA replied: The Committee on the Naval Medical Service forwarded a report relating to naval medical officers on July 2nd, 1909. My right honourable friend the First Lord is not at all convinced that the public interest would be served by laying this report on the table, which deals fully with medical organisation in time of war, and he hopes the House will not press for it. In reply to the third and fourth parts of the question, the Committee advised that the question of pay was a most important factor to be considered when endeavouring to obtain the requisite number of medical officers of the standard necessary and framed proposals which would substantially increase the emoluments of naval medical officers. The Admiralty endorsed this view and obtained authority for increasing their emoluments. The revised scales of pay and allowances were published in circular letter of August 11th last, a copy of which I am forwarding to the honourable Member. The Army Council agreed that a margin of superiority in rates of pay should be given to the Naval Medical Service, and the scales of pay promulgated in the circular letter quoted provided for this margin in future.

The Medical Examination of Intoxicated Persons.

Mr. BURGOYNE asked the Secretary of State for the Home Department whether he was aware that the Metropolitan Police regulations did not allow of the examination by an independent medical man of a person who had been taken into custody and charged by the police with being found drunk on licensed premises, although the opinion of the police surgeon as to the condition of such person was invariably obtained for the purposes of the police prosecution of such person and the licensee of the premises; and whether, having regard to the subsequent proceedings under the Licensing Acts which usually followed against the licensee of the premises upon which the alleged drunken person was found, he would recommend that in those cases in which application was made to the police by the licensee facilities would be granted for an independent medical examination of the person alleged to be drunk, and, if not, was he prepared to recommend that the person charged should at the same time be informed by the police that if he so desired he might be examined by an independent medical man at his own expense instead of by the police surgeon.—Mr. MCKENNA said in reply: The Metropolitan Police regulations require that the divisional surgeon be at once sent for when a prisoner charged with drunkenness denies that he is drunk, and they further provide that the prisoner's own doctor be sent for if he wishes. There could be no more independent examination than that of the divisional surgeon, who holds his appointment from the Secretary of State and is always a practitioner of good standing.

Collectors or Medical Men.

Mr. JOWETT asked the Secretary to the Treasury whether he was aware of the number of persons employed as collectors for medical men who would be deprived of their employment if the National Insurance Bill was passed; whether he would make it an obligation on the part of Local Health Committees in arranging their financial relations with medical practitioners and surgeons to arrange also to compensate their collectors for loss of employment; and, if not, whether he intended to leave the collectors referred to without means of support for themselves and their families.—Mr. MCKINNON WOOD answered: I am afraid that I cannot undertake on behalf of my right honourable friend to introduce into the Bill this additional complication in the relations between the Local Health Committees and the medical men.

TUESDAY, NOV. 21ST.

Ireland and Medical Benefit.

Mr. WILLIAM O'BRIEN asked the Prime Minister whether, for the convenience of Irish Members, he could say when the proposed restoration of medical benefit to Ireland under Clause 59 of the National Insurance Bill would be under discussion.—Mr. MCKINNON WOOD (Secretary to the Treasury): I will answer this question. As the Chancellor of the Exchequer stated during the discussion on Clause 59 in Committee, his only reason for proposing the omission of medical benefit in Ireland was that he found that Irish opinion, as a whole, desired this alteration. He has received no sufficient evidence that Irish opinion has undergone a change in this respect, and he does not, therefore, as at present advised, propose to ask for the recommittal of the Bill for the object indicated by the honourable Member.

Hospital Staffs in India.

Dr. ADDISON asked the Under Secretary of State for India whether it was the intention of the Government, in connexion with the hospitals and sanatoriums that might be erected in India by public money in connexion with the memorial to King Edward VII., to appoint Indian medical men to serve on the staff of these institutions so far as their experience and training might qualify them for holding such posts.—Mr. MONTAGU replied: I am unable to make a definite statement on the intentions of the Government of India with regard to filling appointments which have not yet been created. With regard to the general question involved, perhaps my honourable friend will wait for my answer to his next question.

Dr. ADDISON asked the honourable gentleman how many Indian medical men held appointments as professors or chief teachers in the teaching hospitals and medical colleges of India; and whether it was the intention of the Government to appoint suitable Indian medical men to such posts so far as opportunity might provide.—Mr. MONTAGU replied: None of the highest posts is at present held by an Indian, but the question of appointing Indians to two such posts is now under consideration. The answer to the second part of the question is in the affirmative. The decision of the Secretary of State in 1909 to allow no further increase in the civil side of the Indian Medical Service was intended to have among its results the appointment of Indian medical men to some professorial appointments of the first rank.

Vaccination in the Isle of Man.

Mr. POINTER asked the Secretary of State for the Home Department whether his attention had been drawn to the fact that since August prosecutions for non-vaccination of children had been taking place nearly every week in the Isle of Man; whether the Island Legislature had considered the question of introducing the exemption clause similar to that operating in England, Wales, and Scotland; and, if not, whether he would bring to the notice of the Governor of the Isle of Man the desirability of legislation which would give Manx objectors to vaccination the same rights as those possessed by their fellow citizens of Great Britain.—Mr. MCKENNA wrote in reply: I understand that there have been several prosecutions lately. The Lieutenant-Governor informs me that the insular Legislature has not considered the question of exemption, and that no representations have ever been made to him as to the desirability of the legislation suggested. If there is any grievance the matter is one for the insular Legislature to consider.

Discharged Lunatics.

Mr. ASTOR asked the Secretary of State for the Home Department whether he would state what number of certified lunatics had, during the last five years, been discharged from asylums and subsequently readmitted.—Mr. MCKENNA furnished the following reply: The Commissioners in Lunacy inform me that they have no means of supplying this information. In Appendix B, Table III., of the annual reports of the Commissioners there will, however, be found the figures of the number of persons admitted to asylums during the year who are known to have been at some previous time in an asylum. Of 23,266 persons admitted during the year 1909 to county and borough asylums 3462 were known to have been in asylums before.

Defective and Epileptic Children.

Mr. GOLDSTONE asked the President of the Board of Education how many local authorities had put the Elementary Education (Defective and Epileptic Children) Act, 1899, into operation; how many children of the various classes were treated by such local authorities during the last statistical year; and what was the estimated number of children not treated through the inaction of those authorities which have not adopted the Act.—Mr. J. A. PEASE (in a written answer) replied: The answer to the first part of the question is 142. With regard to the second part of the question, the number of children on the registers of special schools under the Elementary Education (Defective and Epileptic Children) Act, 1899, in England and Wales on July 31st of this year was 17,333, of whom 12,253 were mentally defective, 4703 physically defective, and 377 epileptic. I have no information with regard to the last part of the question.

WEDNESDAY, NOV. 22ND.

Medical Members of Health Committees.

Mr. CROOKS asked the Secretary to the Treasury whether medical men sitting as members of the Local Health Committees would be allowed to practise under the National Insurance Bill—viz., receive fees for service on attendance upon sick persons.—Mr. MCKINNON WOOD replied: Membership of a Local Health Committee, which is a purely honorary position, will not debar a medical man either from private practice or from attending patients under the insurance scheme.

BOOKS, ETC., RECEIVED.

ARNOLD, EDWARD, London.

My Life Story. By Emily, Shareefa of Wazan. Edited for Mme. de Wazan by S. L. Bensusan, author of "Morocco," &c. With a Preface by R. B. Cunninghame Graham. Price 12*s.* 6*d.* net.

BAILLIÈRE, J. B., ET FILS, Paris.

Nouveau Traité de Chirurgie Clinique et Opératoire. Publié en fascicules sous la Direction de A. Le Dentu et Pierre Delbet. XIX. Maladies de l'Œsophage. Par Michel Gangolphe, Professeur Agrégé à la Faculté de Médecine de Lyon, Chirurgien-Major Honoraire de l'Hôtel Dieu. Price, paper, Fr. 3; boards, Fr. 4.50.

BAILLIÈRE, TINDALL, AND COX, London.

Aids to Practical Pharmacy for Medical Students. Adapted for the Examinations in Practical Pharmacy and Materia Medica of the Conjoint and other Examining Boards, and for General Use. By A. Campbell Stark, M.B., B.S. Lond., L.S.A. Eng., Ph.C. Second edition. Price, paper, 2*s.* 6*d.* net.

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CHATTO AND WINDUS, London.

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CLARENDON PRESS, Oxford.

Sir John Burdon Sanderson. A Memoir. By the late Lady Burdon Sanderson. Completed and edited by his Nephew and Niece. With a Selection from his Papers and Addresses. Price 10*s.* 6*d.* net.

KING, P. S., AND SON, 2 and 4, Great Smith-street, Westminster.

Quackery (Quack Remedies and Quack Practice) and Medical Law Reform. A Plea for a Royal Commission. By Henry Sewill. Price 6*d.* net.

LAURIE, T. WERNER, Clifford's Inn, London.

Through India and Burmah with Pen and Brush. By A. Hugh Fisher. Price 15*s.* net.

Zoo Folk. Interviewed by W. J. Roberts, F.Z.S. With 25 illustrations by the author. Price 3*s.* 6*d.* net.

MACMILLAN AND CO., LIMITED, London.

The Treatment of Fractures by Mobilisation and Massage. By James B. Mennell, M.D., B.C. Cantab., &c. With an Introduction by Dr. J. Lucas-Championnière. Price 12*s.* net.

MASSON ET CIE, Paris.

La Pratique Neurologique. Publiée sous la Direction de Pierre Marie, Professeur à la Faculté de Médecine de Paris, Médecin de la Salpêtrière. Par MM. O. Crouzon, G. Delamare, E. Desnos, Georges Guillain, E. Huet, Lannois, A. Léri, François Moutier, Poulard, Roussy. Secrétaire de la Rédaction: O. Crouzon. Price Fr.30.

La Pratique de l'Opothérapie. Principes, Indications, Posologie. Par M. L. Hallion, Directeur adjoint du Laboratoire de Physiologie pathologique des Hautes Études, Professeur remplaçant au Collège de France. Price, Fr.2.

PROGRÈS MEDICAL, ADMINISTRATION DU, 41, Rue des Écoles, Paris, 5e.

Medicus. Guide-Annuaire des Étudiants et des Practiciens. 39e Année, 1911-1912. Price Fr.5.

REYNOLDS-BALL'S GUIDES, 27, Chancery-lane, London, W.C.

Sport on the Rivieras. Edited by Eustace Reynolds-Ball, F.R.G.S., and C. A. Payton, M.V.O. ("Sarcelle," of *The Field*). Price not stated.

SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION (Secretary, W. D. Haggard, M.D., Nashville, Tenn., U.S.A.).

Transactions of the Southern Surgical and Gynecological Association. Vol. XXIII. Twenty-third Session. Held at Nashville, Tenn., Dec. 13th, 14th, and 15th, 1910. Edited by W. D. Haggard, M.D. Price not stated.

TAYLOR AND FRANCIS, Red Lion-court, Fleet-street, London.

Calendar of the Royal College of Surgeons of England. August 1st, 1911. Price not stated.

THIEME, GEORG, VERLAG VON, Leipzig.

Diagnostik und Therapie der Magenkrankheiten. Von Prof. Dr. I. Boas, Spezialarzt für Magen- und Darmkrankheiten in Berlin. Sechste völlig neubearbeitete Auflage. Price M.17.

Einführung in die Physiologie, Pathologie und Hygiene der menschlichen Stimme. Von Dr. Ernst Barth, Königlicher Oberstabsarzt a.D., Arzt für Hals- und Ohrenkrankheiten. Price M.15.

Die Gastroskopie. Von Dr. Hans Elsner, Berlin. Price M.8.

URBAN UND SCHWARZENBERG, Berlin und Wien.

Die Experimentelle Pharmakologie als Grundlage der Arzneibehandlung. Ein Lehrbuch für Studierende und Aerzte. Von Dr. Hans H. Meyer, Wien, und Dr. R. Gottlieb, Heidelberg, Professoren der Pharmakologie. Zweite, neubearbeitete Auflage. Price, paper, M.12; bound, M.14.

Fortschritte der Naturwissenschaftlichen Forschung. Herausgegeben von Prof. Dr. E. Abderhalden, Berlin. Dritter Band. Price, paper, M.16; bound, M.18.

Die Methoden der Untersuchung des Magens und ihre diagnostische Verwertung. Von Dr. Emil Schütz, privat-dozent an der Universität Wien. Price, paper, M.9; bound, M.11.

Untersuchungen über die Struktur der Blutzellen. Von. Priv.-Doz. Dr. Alfred v. Decastello, Assistent, und Dr. Alexander Krjukoff (Moskau), derzeit Hospitant der medizinischen Klinik in Innsbruck. (Ausgeführt mit Subvention aus dem Legate Wedl der kaiserlichen Akademie der Wissenschaften in Wien. Der Akademie vorgelegt in der Sitzung am 18. Oktober, 1910.) Price, paper, M.16; bound, M.18.

Meine Präparationsmethode des Operationsfeldes mittels Jodtinktur. Von Kgl. Rat Dr. Antonio Grossich, Primarchirurg am Ospedale Civico in Fiume. Price, paper, M.3.

Taschenbuch für die Behandlung der Hautkrankheiten für praktische Aerzte. Von Dr. Oskar Scheuer, Facharzt für Haut- und Geschlechtskrankheiten in Wien. Price, bound, M.4.50.

VIGOT FRÈRES, Paris.

La Responsabilité Attenuée. Lois faites dans les divers Pays, Lois à faire concernant les Criminels à Responsabilité attenuée. Par le Docteur L. Mathé, Rapporteur au Troisième Congrès International de Médecine Légale (Bruxelles, 1910), Inspecteur des Écoles. Préface de M. Joseph Reinach, député. Price, Fr.2.

Traité Pratique des Maladies du Cœur et de l'Aorte. Par Ernest Barié, Médecin de l'Hôpital Laënnec. Préface par le Professeur Potain, Membre de l'Institut. Troisième édition, entièrement refondue. Price, Fr.20.

Thérapeutique Chirurgicale et Chirurgie Journalière. Par G. Phocas, Professeur de Clinique Chirurgicale à la Faculté de Médecine d'Athènes, et J. Barozzi, Ancien Interne des Hôpitaux de Paris, Lauréat de la Faculté de Médecine de Paris. Price Fr.16.

WITHERBY AND CO., 326, High Holborn, London.

A Naturalist on Desert Islands. By Percy R. Lowe, B.A., M.B. Cantab., Member of the British Ornithologists' Union. Price 7*s.* 6*d.* net.

WRIGHT, JOHN, AND SONS, LIMITED, Bristol. SIMPKIN, MARSHALL, HAMILTON, KENT, AND CO., LIMITED, London. WOOD, WILLIAM AND CO., New York.

An Index of Treatment. By Various Writers. Edited by Robert Hutchison, M.D., F.R.C.P., and H. Stansfield Collier, F.R.C.S. Sixth edition, revised and enlarged. Price 21*s.* net.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

ASHBY, T. EWART, M.R.C.S., L.R.C.P. Lond., has been appointed Second House Surgeon at the Royal Berkshire Hospital.

BICE, FRANK VEALE, L.R.C.P. Lond., M.R.C.S., has been appointed Public Vaccinator for the Third and Sixth Districts by the St. Columb Major (Cornwall) Board of Guardians.

COSTELLO, JAMES MICHAEL BODKIN, M.B., B.Ch., B.A.O. Irel., D.P.H. Irel., has been appointed District Medical Officer by the Cardiff Board of Guardians.

DONELAN, JAMES, M.B., M.Ch. Dub., has been appointed Laryngologist to the London Opera House.

HEBBLETHWAITE, SEPTIMUS MONTAGUE, M.D. Lond., M.R.C.P. Lond., M.R.C.S., L.S.A., has been appointed Honorary Clinical Pathologist to the Cheltenham General Hospital.

JOLLY, R. H. H., M.B., B.S. Lond., D.P.H., has been appointed Resident Medical Officer at the Victoria Hospital for Children, Chelsea.

KENDREW, ALEXANDER JOHN, M.B., B.S. Lond., L.R.C.P. Lond., M.R.C.S., has been appointed District Medical Officer for Bishops Tawton, Landkey, Stoke Rivers, and Swymbridge by the Barnstaple (Devon) Board of Guardians.

LAKE, NORMAN C., M.B., B.S. Lond., has been appointed Demonstrator of Anatomy at King's College.

MOLYNEUX, BENJAMIN ARTHUR, M.B., B.Ch., B.A.O. Dub., has been appointed Assistant Medical Officer at the Gloucester County Asylum, Barnwood.

ORTON, HARRISON, M.B., B.S. Cantab., has been appointed Honorary Radiographer to the Mount Vernon Hospital for Consumption.

PENNINGTON, DRURY, M.R.C.S., L.R.C.P. Lond., has been appointed Clinical Assistant to the Samaritan Free Hospital for Women.

RAW, STANLEY, M.D., B.S. Durh., F.R.C.S. Edin., has been appointed Honorary Surgeon to the Children's Hospital in connexion with the Sunderland Royal Infirmary.

SUTHERLAND, D. P., M.B., B.S. Lond., has been appointed Medical Assistant in connexion with Tuberculosis to the Medical Officer of Health of Manchester.

WALLACE, JOHN, M.B., C.M. Edin., B.Sc. Public Health, has been appointed Medical Officer of Health of Weston-super-Mare and Medical Attendant and Superintendent of the Isolation Hospital.

WILSON, NORMAN, M.D., B.C. Cantab., has been appointed Medical Officer of Health for the Urban District of Sherborne.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BARNSLEY, BECKETT HOSPITAL.—Second House Surgeon, unmarried. Salary £100 per annum, all found.

BATH ROYAL UNITED HOSPITAL.—House Surgeon. Salary £80 per annum, with board, residence, and washing.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham-road, S.W.—Second Anæsthetist.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Resident House Surgeon. Salary £80 per annum, with board and washing.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon, unmarried. Salary £200 per annum, with rooms, fire, light, and attendance.

BRISTOL, COSSHAM MEMORIAL HOSPITAL, Kingswood.—House Surgeon. Salary £50 per annum, with board, lodging, and washing.

BRISTOL ROYAL INFIRMARY.—House Physician. Salary £100 per annum, with board, apartments, and laundry.

BURNLEY, VICTORIA HOSPITAL.—Second House Surgeon for six months. Salary at rate of £80 per annum, with residence, board, and washing.

BURY INFIRMARY.—Junior House Surgeon. Salary £80 per annum, with board, residence, and laundry.

CAMBERWELL DISTRICT OF THE PARISH OF ST. GILES.—Medical Officer. Salary at rate of £125 per annum,

CARDIFF, KING EDWARD VII.'S HOSPITAL.—Three Honorary Assistant Anæsthetists.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn-road.—Resident House Surgeon. Salary £50 per annum, with board and residence. Also Registrars and Clinical Assistants.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Clinical Assistant for three months.

COLCHESTER EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary £250 per annum.

DONCASTER, ROYAL INFIRMARY AND DISPENSARY.—Senior House Surgeon and Assistant House Surgeon. Salaries respectively £100 and £80 per annum, with board, lodging, and washing.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—Assistant Physician. Also Physician.

EVELINA HOSPITAL FOR CHILDREN, Southwark, London, S.E.—House Surgeon for six months.

FARNHAM, SURREY, CROOKSBURY SANATORIUM FOR THE OPEN-AIR TREATMENT OF PHTHISIS.—Medical Officer. Salary £150 per annum, with board and lodging.

FLEETWOOD, ROSSALL SCHOOL.—Resident Medical Officer, unmarried. Salary £250 per annum, with board and residence.

FLORENCE NIGHTINGALE HOSPITAL FOR GENTLEWOMEN, 19, Lissongrove, N.W.—House Surgeon. Salary £100 per annum.

GLASGOW MATERNITY AND WOMEN'S HOSPITAL, OBSTETRICAL DEPARTMENT.—Two out-door House Surgeons at the Hospital and out-door House Surgeon (female) at West End Branch for three months.

HASTINGS, EAST SUSSEX HOSPITAL.—Assistant House Surgeon. Salary at rate of £70 per annum, with residence, board, and washing.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—House Physician.

HULL ROYAL INFIRMARY.—Assistant House Surgeon. Salary at rate of £60 per annum, with board and lodging.

INDIAN MEDICAL SERVICE.—Twelve Commissions.

ITALIAN HOSPITAL, Queen-square, London, W.C.—Honorary Assistant Physician.

KENSINGTON DISPENSARY AND CHILDREN'S HOSPITAL.—Vacancy on the Honorary Medical Staff.

KING'S COLLEGE HOSPITAL.—House Anæsthetist. Also Assistant Anæsthetist.

LEICESTER INFIRMARY.—Honorary Assistant Surgeon.

LONDON FEVER HOSPITAL, Liverpool-road, Islington, N.—Resident Medical Officer. Salary £250 per annum, with board and residence.

LONDON TEMPERANCE HOSPITAL.—Surgical Registrar. Salary at rate of 40 guineas per annum.

MANCHESTER CHILDREN'S HOSPITAL (OUT-PATIENTS' DEPARTMENT), Gartside-street, Manchester.—Medical Officer. Salary £180 per annum.

MANCHESTER ROYAL EYE HOSPITAL.—Junior House Surgeon. Salary £80 per annum, with residence, board, and washing.

MANCHESTER WORKHOUSE, Crumpsall.—Junior Resident Assistant Medical Officer. Salary £110 per annum, with apartments, washing, attendance, &c.

MULLINGAR DISTRICT LUNATIC ASYLUM.—Resident Medical Superintendent. Salary £400 per annum.

NAPSBURY, MIDDLESEX COUNTY ASYLUM, St. Albans.—Assistant Medical Officer. Salary £180 per annum, with board, lodging, washing, and attendance.

NEWCASTLE-ON-TYNE, HOSPITAL FOR SICK CHILDREN.—Honorary Surgeon. Also Honorary Assistant Physician.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House Physician. Also Assistant House Surgeon. Salary in each case £100 per annum, with board, lodging, and washing.

PLUMSTEAD, WOOLWICH INFIRMARY.—Assistant Medical Officer, unmarried. Salary £150 per annum, with apartments, rations, and washing.

POWICK, WORCESTER COUNTY AND CITY ASYLUM.—Second Assistant Medical Officer, unmarried. Salary £180 per annum and all found.

PRESTON, COUNTY ASYLUM, Whittingham.—Pathologist and Assistant Medical Officer. Salary £200 per annum, with board, apartments, and washing.

PRESTWICH, MANCHESTER, COUNTY ASYLUM. — Assistant Medical Officer, unmarried. Salary £150 per annum, with board, apartments, and washing.

ROYAL COLLEGE OF PHYSICIANS.—Milroy Lecturer for 1913.

ROYAL DENTAL HOSPITAL OF LONDON, Leicester-square.—Morning House Anæsthetist. Salary £25 per annum.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN.—Honorary Ophthalmic Surgeon. Also Honorary Dental Surgeon.

ST. MARK'S HOSPITAL FOR CANCER, FISTULA, AND OTHER DISEASES OF THE RECTUM, City-road, London, E.C.—House Surgeon. Salary £80 per annum, with board, lodging, and washing.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston-road.—Honorary Physician.

ST. THOMAS'S HOSPITAL.—Resident Assistant Physician. Also Surgical Registrar.

SHEFFIELD ROYAL HOSPITAL.—Assistant House Physician, unmarried. Salary £60 per annum. with board, lodging, and washing.

SHREWSBURY, COUNTY ASYLUM.—Second Assistant Medical Officer unmarried. Salary £170 per annum, with board, apartments, washing, attendance, &c.

SURREY, HOLLOWAY SANATORIUM FOR THE INSANE, Virginia-water.—Junior Assistant Medical Officer (lady). Salary £140 per annum, rising to £200, with board, lodging, laundry, and attendance.

THROAT HOSPITAL, Golden-square, W.—Honorary Assistant Surgeon.

WADSLEY, NEAR SHEFFIELD, WEST RIDING ASYLUM.—Fifth Assistant Medical Officer. Salary £140 per annum, with board, &c.

WEST LONDON HOSPITAL, Hammersmith, W.—House Physician for six months. Board, lodging, and laundry allowance.

WIGAN, ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY.—Assistant Honorary Surgeon in the Eye, Ear, and Throat Departments.

THE Chief Inspector of Factories, Home Office, London, S.W., gives notice of vacancies as Certifying Surgeons under the Factory and Workshop Act at Sidmouth, in the county of Devon; at Exmouth, in the county of Devon; at Cullingworth, in the county of Yorks, West Riding; and at Blaenavon, in the county of Monmouth.

Births, Marriages, and Deaths.

BIRTHS.

COURTNEY.—On Nov. 15th, at Barton, near Ampthill, Bedfordshire, the wife of Harold G. S. Courtney, M.R.C.S., of a daughter.

MARRIAGES.

LEA—BUZZARD.—On Nov. 18th, at St. George's Church, Hanover-square, Charles Edgar Lea, M.D., to Dorothy Cadell, younger daughter of Thomas Buzzard, M.D., F.R.C.P.

RIGDEN—MAY.—On Nov. 15th, at the Church of St. Barnabas, Kensington, Alan Rigden, M.D., to Catherine, daughter of the late Daniel May, of Dudley.

DEATHS.

O'MEARA.—On Nov. 15th, at Carlton House, Holbeach, William Henry O'Meara, L.R.C.P., L.R.C.S. Edin., L.A.H. Dub., Surgeon, R.N. (retired), aged 52 years.

WEBB.—On Nov. 18th, at The Hermitage, Exeter, William Wilfrid Webb, M.D., formerly a Major in the Indian Medical Service, Bengal Army, in his 54th year.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

THE USE OF DIACHYLON AS AN ABORTIFACIENT.

To the Editor of THE LANCET.

SIR,—In consequence of the increasing prevalence of the habit of taking diachylon as an abortifacient and the evident ignorance of the public as to the poisonous nature of that substance, the Birkenhead and Wirral Association of Pharmacists is attempting to stamp out the habit and to protect those who will not protect themselves, so far as its area of influence is concerned, and at its last meeting unanimously passed the following resolution:—

That in view of diachylon being largely purchased as an abortifacient, this association recommends each of its members to discourage the sale of diachylon, unless he is perfectly satisfied it is going to be used for a legitimate purpose.

May I ask you the favour of inserting the foregoing in your valuable journal? I am, Sir, yours faithfully,

Nov. 16th, 1911. T. STEPHEN JONES, Honorary Secretary.

SOMALILAND HEALTH REPORT.

A REPORT on the Somaliland Protectorate for the year ended March 31st, 1911, has just been received at the Colonial Office. It states, *inter alia*, that no census of the population has ever been taken, but it is estimated that there are about 300,000 Somalis, 200 Indians, 300 Arabs, 20 Europeans and whites, and 100 mixed. The population is probably about stationary, owing to tribal disturbances affecting the general mortality. The country under present conditions is capable of sustaining a limited population only, owing to the limited water-supply and lack of agriculture. The general state of the public health is good. There are comparatively few diseases met with, and these seldom of a virulent type. Malarial diseases and pneumonia are the chief ailments of the winter. A routine examination of persons suffering from malaria is conducted, and any enlargement of the spleen is noted. It may be stated that splenic enlargement is quite uncommon as a rule, just as the usual malarial attack is of a distinctly mild form and occurs only during a very limited period of the year. It is a great deal owing to this fact that the public distribution of quinine, other than at the hospitals, is practically not called for. Occasionally exceptions are made, but the annual consumption of quinine is altogether only some 10 lb. to 12 lb. for the whole coast. At Berbera water is brought to the town and supplied by public fountains. The water is drawn from springs nine miles distant, and is at a temperature of from 95° to 100° F. at the springs. It is conducted through iron pipes, after being partially cooled in depositing tanks. The other towns are supplied from wells at a distance, the water being conveyed in skin bags to the consumers. The water at all the coast towns is more or less brackish, and is on occasion liable to produce severe colic and diarrhœa from mineral impurities and earths.

The Somali has still to learn the proper use of a house for shelter from cold, wind, and dew, and for the protection of his women and children from the ravages of hyænas. He lives chiefly in the open air by day and night. His hut is made of grass, mats, and sticks, occasionally plastered with mud, and is of such slight construction that it can usually be demolished and carried away on a camel at a few hours' notice. The huts of the poorer Somalis are usually about 12 ft. by 8 ft., and the only cleansing, or rather disinfecting, agent they know is the smoke of the smouldering fire which they use for cooking their food. The saving quality of these huts is that they cannot last longer than three or four years.

The climate is chiefly remarkable for its very dry character. Sickness is more prevalent in the winter months, but this is chiefly because during this period of the year caravans from the interior come down to the coast, which is to a great extent abandoned during the extreme heat of summer by the greater part of the population.

A general hospital is situated at each of the three principal coast towns—viz., Berbera, Bulhar, and Zeyla. A disinfecting station, furnished with a Clayton disinfector, exists at Berbera. The withdrawal of the troops from the interior necessitated the closing of the camp hospitals at Burao and Sheik, and has led to the necessary abandonment of the isolation hospital for tuberculous disease and the small-pox hut, which were outside the limits of the town of Berbera. Matting huts were erected as required to meet a small-pox epidemic at each of the three towns. These huts were found to answer the purpose well, owing to the dryness of the climate. The number of admissions to the hospitals was 347; the number of deaths in hospital, 9. These figures are exclusive of 698 cases with 139 deaths from small-pox treated at the small-pox camps. There are three dispensaries, one being attached to each of the three coast hospitals. The attendance of patients during the year totalled 23,151. At Berbera Hospital a room is available for laboratory purposes; this was built last year and steps have now to be taken to supply scientific apparatus and fittings. Ordinary blood examinations and urine testing have been carried out, but apparatus is still needed for proper bacteriological investigation. The medical service of the colony consists of two medical officers assisted by three sub-assistant surgeons, the latter having received their qualifications in India. Native Somalis are employed as hospital servants. There are no special health officers or registered medical practitioners.

HYGIENE IN THE BAKERY.

THERE has recently been started an Electric Machine Bakery at Golders Green by Messrs. R. and T. Pritchard, who deserve a word of praise for applying to practical bread-making sound hygienic principles. The installation affords an interesting contrast to the old, and we are glad to think now obsolete, underground bakery. The objection, also, to the dough coming into contact with the hands of a diligent perspiring "kneader" is entirely overcome by the adoption of a kneading machine worked by the electric current. Further, the flour before being worked into dough is sifted thoroughly from foreign matters by an electric sifter placed immediately above the kneader into which the cleansed flour is fed. Other appliances, as, for example, ovens, automatic weighing and moulding plant, have been installed which also secure the healthy preparation of bread, cakes, and confectionery. Bread made under this clean and sanitary environment needs no commendation from us, who have for years insisted upon sanitary reform being enforced in the baking trade. We are pleased to find such striking evidence of the correct impressions and deductions which our exposures published some years ago have given.

VOICE PRODUCTION.

Mr. Hermann Klein will give an afternoon *causerie* at Bechstein Hall on Monday, Dec. 4th, at 5.30, taking as his subject "The Method of Manuel Garcia and the Stroke of the Glottis." Many medical men are interested in the technique of vocal art, and certain questions of voice production, which have been variously discussed, have a distinct anatomical bearing. We are informed that for the first time on this occasion the famous master's own standpoint will be publicly explained and demonstrated. Mr. Klein was Garcia's pupil and coöperated with his master in a text-book.

THE DOMEN ADHESIVE ELASTIC BANDAGING.

WE have received from the Domen Belts Company, of 456, Strand, W.C., a sample of the Domen adhesive elastic bandaging and have submitted it to tests. It resembles ordinary strapping in that it is adhesive, but it differs from adhesive strapping by its elasticity. It is made from a material something like dometto or crêpe, in that it is openly woven, so that it possesses a certain amount of elasticity, which allows it to adapt itself to irregular surfaces. It is porous, so that it allows perspiration to escape. It will stand hot or cold water, and water does not harden it; it is easily removed, although it adheres readily. The adhesive composition is said to contain no lead plaster or rubber or gum; it is certainly very unirritating, so that it may be applied to tender skins. Each bandage is 4 yards in length, and it is made in various widths from ½ inch to 4 inches, the price ranging from 10*d.* to 4*s.* for the 4 yards.

PRINCESS AELFRIDA'S CHARITY.

"Princess Aelfrida's Charity" is the reputed Manor of Old Court, Greenwich, which was originally a grant by Princess Aelfrida, third daughter of King Alfred the Great, of her "inheritance of Lewisham and Greenwich and Woolwich, with meadows, pasture lands, wood, serfs also, and all the above-mentioned inheritance in its entirety" to the Monastery of Blandinium. In two neat little pamphlets with the above title, the Rev. Henry Lansdell, D.D., chaplain of Morden College, Blackheath, records graphically, and often in vigorous terms, the vicissitudes of this charitable gift. The first pamphlet covers the 600 years period, A.D. 918 to 1536, at which time the Manor was diverted from its original purposes to augment the possessions of Henry VIII. The second continues the story from that period until 1699, when the property fell to Sir John Morden, Bart., who gave it as a part of the endowment of his College for "decayed merchants," then building at Blackheath. There are many quaint historical data of interest in these brochures.

R. H.—It is always worth while to try the vaccine treatment of acne with stock vaccine at first, and then if this should fail vaccines prepared from the patient himself may be employed. Our correspondent does not say what form of acne is present; are there only comedones or are there many pustules as well? The mixed vaccine should be used if many pustules are present. The age of the patient is a factor. Diet is important.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

A DIARY OF CONGRESSES.

WE shall publish this diary from time to time that our readers may have under their hands the dates of the approaching scientific Congresses. It is unnecessary to issue the lists of all these functions week by week, and we propose to make only such gatherings as will occur in the immediate future the subject of regular announcement. The following Congresses, Conferences, and Exhibitions are announced for the next few months:—

September–November (Antwerp).—International Exhibition of Alimentation, Brewing, Wines, and Liqueurs.
November (Rome).—Fourth International Congress of Physical Education.
Dec. 1st (The Hague).—International Opium Conference.
,, 4th–9th (Havana, Cuba).—American Public Health Association.
,, 19th–23rd (Moscow).—Third Pan-Russian Therapeutical Congress.

In 1912:—

Jan. 20th–27th (Hong-Kong).—Second Biennial Congress of the Far Eastern Association of Tropical Medicine.
March 23rd–April 4th (London, Royal Agricultural Hall).—International Smoke Abatement Exhibition.
,, (London).—First Congress of Pure Food and Health Society of Great Britain.
,, (Berlin).—Thirty-third Balneological Congress.
April 1st–7th (Tunis).—Twenty-second Congress of French-speaking Alienists and Neurologists.
,, 14th–20th (Rome).—Seventh International Congress on Tuberculosis.
,, (Rome).—Seventh International Congress of Dermatology and Syphilology.
,, (Giessen).—Congress on Study of Families, Inheritance, and Race Hygiene.
Spring (London).—Second Optical Convention.

Medical Diary for the ensuing Week.

SOCIETIES.

ROYAL SOCIETY OF MEDICINE, 15, Cavendish-square, W. (temporary address during building of new house).

MONDAY.

ODONTOLOGICAL SECTION (Hon. Secretaries—W. W. James, Stanley Mummery): at 8 P.M.

Casual Communications:

Mr. Frank Coleman: (1) Fistula of the Antrum Closed by Sliding Bone Flaps; (2) An Important Sign in the Diagnosis of Fracture of the Jaw.

Paper:

Mr. A. H. Parrott: Local Anæsthesia with Special Reference to Injection Methods.

TUESDAY.

MEDICAL SECTION (Hon. Secretaries—Sir John F. H. Broadbent, Robert Hutchison): at 5.30 P.M.

Papers:

Dr. F. Craven Moore and Dr. H. E. Allanson: The Influence of Certain Accessory Food-stuffs on Gastric Secretion.
Dr. Parkes Weber: The Association of Hysteria with Malingering, and the Phylogenetic Aspect of Hysteria as Pathological Exaggeration (or Disorder) of Tertiary (Nervous) Sex Characters.

FRIDAY.

LARYNGOLOGICAL SECTION (Hon. Secretaries—W. H. Kelson, Dan McKenzie), at 11, Chandos-street, W.: at 4.30 P.M.

Cases

Will be shown by Dr. William Hill, Dr. Jobson Horne, Dr. Kelson, and others.

SECTION OF ANÆSTHETICS (Hon. Secretaries—Mrs. Dickinson Berry, H. J. Scharlieb): at 8.30 P.M.

Paper:

Dr. Dudley Buxton: Crawford W. Long, the Pioneer of Ether Anæsthesia. The Methods of 1842 and 1911. To be followed by Discussion.

MEDICAL SOCIETY OF LONDON, 11, Chandos-street, Cavendish-square, W.

MONDAY.—8 P.M., Clinical Meeting. Cases will be exhibited by Dr. de Havilland Hall, Mr. Stebbing, Mr. E. M. Corner, Dr. W. Carr, Mr. D. Fitzwilliams, Mr. W. Low, and others.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, West London Hospital, Hammersmith-road, W.

FRIDAY.—8.30 P.M., Dr. S. Taylor: Unrecognised Diphtheria.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies-street, W.C.

MONDAY.—4 P.M., Dr. E. Dore: Clinique (Skin). 5.15 P.M., Lecture:—Dr. G. Oliver: On Præcedema and Nascent Œdema, their Detection and Treatment.
TUESDAY.—4 P.M., Dr. J. Taylor: Clinique (Medical). 5.15 P.M., Lecture:—Mr. J. E. Lane: Syphilis d'Emblée.
WEDNESDAY.—4 P.M., Sir A. Pearce Gould, K.C.V.O.: Clinique (Surgical). 5.15 P.M., Lecture:—Dr. W. H. B. Stoddart: The Nature of Hysteria.
THURSDAY.—4 P.M., Mr. E. L. Evans: Clinique (Surgical). 5.15 P.M., Lecture:—Mr. R. H. A. Whitelocke (Oxford): Treatment of Displaced or Injured Semilunar Cartilage of the Knee-joint.
FRIDAY.—4 P.M., Mr. K. Campbell: Clinique (Eye).

POST-GRADUATE COLLEGE, West London Hospital, Hammersmith-road, W.

MONDAY.—10 A.M., Surgical Registrar: Demonstration of Cases in Wards. Dr. Simson: Diseases of Women. 12 noon, Dr. Bernstein: Pathological Demonstration. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. 2.30 P.M., Mr. Dunn: Diseases of the Eye. 5 P.M., Lecture:—Dr. G. Stewart: Treatment of Organic Paralysis.
TUESDAY.—10 A.M., Dr. Robinson: Gynæcological Operations. 11.30 A.M., Mr. Etherington-Smith: Demonstration of Minor Operations. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. 2.30 P.M., Dr. Abraham: Diseases of the Skin. 5 P.M., Lecture:—Dr. Pritchard: Clinical Pathology.
WEDNESDAY.—10 A.M., Dr. Simson: Gynæcological Demonstration. Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. Mr. B. Harman: Diseases of the Eye. 2.30 P.M., Dr. Simson: Diseases of Women. 5 P.M., Lecture:—Dr. Beddard: Practical Medicine. (Lecture IV.).
THURSDAY.—10 A.M., Surgical Registrar: Demonstration of Cases in Wards. 12.15 P.M., Lecture:—Dr. G. Stewart: Practical Medicine. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. 2.30 P.M., Mr. Dunn: Diseases of the Eye. 5 P.M., Lecture:—Dr. G. Stewart: Treatment of Hysterical Paralysis.
FRIDAY.—10 A.M., Dr. Robinson: Gynæcological Operations. 12.15 P.M., Lecture:—Dr. Pritchard: Practical Medicine. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. 2.30 P.M., Dr. Abraham: Diseases of the Skin. 5 P.M., Lecture:—Dr. Abraham: Cases of Skin Disease.
SATURDAY.—10 A.M., Medical Registrar: Demonstration of Cases in Wards. Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. Mr. Bishop Harman: Diseases of the Eye. 2 P.M., Medical and Surgical Clinics. X Rays. Operations.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.

MONDAY.—2 P.M., Operations. 2.15 P.M., Mr. Turner: Surgery. 3.15 P.M., Sir Dyce Duckworth: Medicine. 4.30 P.M., Mr. R. Lake: Ear and Throat. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Ear and Throat.
TUESDAY.—2 P.M., Operations. 3.15 P.M., Dr. R. Wells: Medicine. 2.15 P.M., Mr. R. Carling: Surgery. 4.15 P.M., Sir M. Morris: Diseases of the Skin. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Skin. 3.15 P.M., Special Lecture:—Dr. R. Wells: Modern Theories of Heart Disease.
WEDNESDAY.—2 P.M., Operations. 2.15 P.M., Dr. F. Taylor: Medicine. 3.30 P.M., Mr. Cargill: Ophthalmology. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 11 A.M., Eye.
THURSDAY.—2 P.M., Operations. 2.15 P.M., Dr. G. Rankin: Medicine. 3.15 P.M., Sir W. Bennett: Surgery. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Ear and Throat. 4.30 P.M., Special Lecture:—Mr. Cantlie: Surface Anatomy.
FRIDAY.—2 P.M., Operations. 2.15 P.M., Sir J. Rose Bradford: Medicine. 3.15 P.M., Mr. McGavin: Surgery. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Skin. 2.15 P.M., Special Lecture:—Sir John Bradford: Epilepsy and Epileptiform Fits.
SATURDAY.—10 A.M., Radiography. 11 A.M., Dr. A. Davies: Pathological Demonstration. 2 P.M., Operations. Out-patient Demonstration:—10 A.M., Surgical and Medical. 11 A.M., Eye.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.

MONDAY.—Clinics:—10.30 A.M., Surgical Out-patient (Mr. E. Gillespie). 2.30 P.M., Medical Out-patient (Dr. T. R. Whipham); Nose, Throat, and Ear (Mr. H. D. Gillies). 3 P.M., Pathological Demonstration (Dr. Duncan).
TUESDAY.—Clinic: 2.30 P.M., Operations. Clinics:—Medical Out-patient (Dr. A. G. Auld); Surgical (Mr. Howell Evans); Gynæcological (Dr. A. E. Giles). 3.30 P.M., Medical In-patient (Dr. A. J. Whiting). 4.30 P.M., Lecture:—Mr. Howell Evans: Surgical Conditions of Antenatal Origin.
WEDNESDAY.—Clinics:—2 P.M., Throat Operations (Mr. Gillies). 2.30 P.M., Children's Out-patient (Dr. T. R. Whipham); Skin (Dr. G. N. Meachen): Eye (Mr. R. P. Brooks). 3 P.M., X Rays (Mr. W. Steuart); Pathological Demonstration (Dr. Duncan). 5.30 P.M., Eye Operations (Mr. Brooks).
THURSDAY.—2.30 P.M., Gynæcological Operations (Dr. A. E. Giles). Clinics:—Medical Out-patient (Dr. A. J. Whiting); Surgical (Mr. Carson). 3 P.M., Medical In-patient (Dr. G. P. Chappel). 4.30 P.M., Demonstration:—Dr. T. R. Whipham: Selected Cases of Children's Disease.
FRIDAY.—2.30 P.M., Operations. Clinics:—Medical Out-patient (Dr. A. G. Auld); Surgical (Mr. E. Gillespie); Eye (Mr. R. P. Brooks). 3 P.M., Medical In-patient (Dr. R. M. Leslie); Pathological Demonstration (Dr. Duncan).

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST. Brompton, S.W.

WEDNESDAY.—4 P.M., Lecture:—Dr. Inman: Secondary Infections in Pulmonary Tuberculosis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury, W.C.

TUESDAY.—3.30 P.M., Clinical Lecture:—Mr. D. Armour: Surgery of the Nervous System.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn-road, W.C.

TUESDAY.—3.45 P.M., Lecture:—Mr. C. Nourse: Accessory Sinuses.
FRIDAY.—3.30 P.M., Lecture:—Dr. W. Wingrave: Vaccines.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, 49, Leicester-square, W.C.

TUESDAY.—6 P.M., Dr. Sibley: Electrical Treatment in Dermatology.
THURSDAY.—6 P.M., Chesterfield Lecture:—Dr. M. Dockrell; Paratuberculides (due to Tuberculous Toxins)—I., Macular; II., Papular; III., Pustular; IV., Pigmentary.

ANCOATS HOSPITAL, Manchester.

THURSDAY.—4.15 P.M., Mr. E. S. Bishop: Urinary Surgery. (Post-Graduate Clinic.)

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (27th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9 A.M.), St. Mark's (2.30 P.M.), Central London Throat and Ear (Minor 9 A.M., Major 2 P.M.).

TUESDAY (28th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London, (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.), Chelsea (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 2 P.M., Ophthalmic, 2 P.M.), Tottenham (2.30 P.M.), Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.), Royal National Orthopædic (9.30 A.M. and 4 P.M.).

WEDNESDAY (29th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's 2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 9.30 A.M., Dental, 2 P.M.), Tottenham (Ophthalmic, 2.30 P.M.), West London (2.30 P.M.), Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.).

THURSDAY (30th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal National Orthopædic (9 A.M. and 3.30 P.M.), Royal Ear (2 P.M.), Children Gt. Ormond-street (9 A.M. and 2 P.M.), Tottenham (Gynæcological, 2.30 P.M.), West London (2.30 P.M), Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.).

FRIDAY (1st).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Royal National Orthopædic (3.30 P.M.), Soho-square (2 P.M.), Children, Gt. Ormond-street (9 A.M., Aural, 2 P.M.), Tottenham (2.30 P.M.), St. Peter's (2 P.M.)., Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.).

SATURDAY (2nd).—Royal Free (9A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 A.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9 A.M. and 9.30 A.M.), West London (2.30 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic (2 P.M.), Hospital operations are performed daily.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Nov. 22nd, 1911.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain fall.	Solar Radio in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks.
Nov. 16	29·55	S.W.	0·04	63	58	49	52	52	Cloudy
,, 17	29·24	S.W.	0·33	75	54	49	52	52	Overcast
,, 18	28·85	S.W.	0·23	51	48	46	46	46	Raining
,, 19	28·76	WNW	0·24	45	44	40	41	42	Overcast
,, 20	29·33	N.W.	0·40	54	48	40	43	44	Overcast
,, 21	29·57	N.	...	61	41	38	37	38	Overcast
,, 22	29·42	N.W.	...	45	40	32	36	37	Foggy

The following journals, magazines, &c., have been received:—Middlesex Hospital Journal, St. Thomas's Hospital Gazette, Annali di Medicina Navale e Coloniale, Office International d'Hygiène Publique, South African Medical Record, Canadian Practitioner and Review, Medico-Surgical Journal of the Tropics, British Journal of Dermatology, British Journal of Dental Science, Albany Medical Annals, Revue de Médecine, Revue de Chirurgie, Canadian Medical Association Journal, Cornell University Medical Bulletin, American Journal of Obstetrics, Journal of Tropical Medicine and Hygine, London Hospital Gazette, Journal of Obstetrics and Gynæcology, China Medical Journal, Transactions of the Society of Tropical Medicine and Hygiene, New Orleans Medical and Surgical Journal, American Journal of Surgery, Journal of Pathology and Bacteriology, Birmingham Medical Review, Science Progress, Symons's Meteorological Magazine, Transactions of the Ophthalmological Society of the United Kingdom.

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I.—International Congress of Entomology, Lond., Secretary of; Hon. Mrs. Ives, Halstead; *The Ironmonger*, Lond., Editor of.

J.—Mr. E. O. Jago, Manchester; *Journal of Experimental Medicine*, New York; Mr. E. H. Joynson, Manchester.

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